

European Science and Technology Highlights National Science Foundation Europe Office 2008



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1 Austria

1.1 fFORTE: More Women in Science

Following a recommendation from the Council for Research and Technological Development (RFT) going back to 2001, first three, then four ministries undertook to coordinate and expand their efforts to increase the share of women in science.

Called fFORTE, this initiative brings together the ministry for Science and Research (BMWF), the ministry for Transport, Innovation and Technology (BMVIT), the ministry for Economy and Work (BMWA), and finally the ministry for Education, Arts and Culture (BMUKK) around 24 lines of action.

Its motivations are twofold: ethics and utility. On the one hand it seeks to guarantee equal access to knowledge, training, and scientific careers, while on the other it emphasizes excellence and economic prosperity, since the distribution of the talents is recognized as occurring equally between women and men.

fFORTE targets five objectives:

1. to facilitate access to scientific thinking;
2. to increase opportunities for starting and succeeding in a scientific career;
3. to facilitate access to finances and infrastructure;
4. to ensure parity in education, economy and public administration;
5. to promote the issue of parity in science as a field of study.

The ongoing program evaluation aims to redraw fFORTE over the period 2009-2012.

Source: February 2008

<http://www.rat-fte.at>

Electronic Bulletin February 13, 2008

1.2 The Austrian Agency for Quality Assurance

To assist universities in developing procedures for internal evaluation, the state established in 2003 the Austrian Agency for Quality Assurance (Osterreichische Qualitätssicherungsagentur, AQA). As an independent agency, the AQA develops standards, coordinates evaluations of higher education, and assists universities with internal evaluation (approximately half of the Austrian universities use its services today). It is supervised by the Vice-chancellor's committee, the national student union, the conference of universities of applied sciences applied (FH), the ministry for Science and Research (BMWF) and a representative of the private universities. Its budget is supported 50% by the BMWF and 50% by evaluation contracts (approximately 10,000 Euros for the evaluation of a curriculum and 30,000 euros for that of an institution). The AQA employs seven people and covers higher education and research; its involvement is never spontaneous and the agency does not issue accreditation.

On April 14-15, 2008, the AERES has been invited to moderate an exchange in Vienna among several European agencies. The objective is to engage a more effective cooperation than the ENQA (European Association for Quality Assurance in Higher Education) has managed to achieve so far in its evaluation of facilities. A joint label would have a greater impact and would respond to requests from universities, thereby facilitating university cooperation. The ENQA could serve as the final part of such agreements.

The AQA should not become the single interlocutor of the Austrian Higher Education in the area of evaluation, but should be based on the international competition of the agencies of evaluation, in agreement with the objectives of Bologna. The Austrian universities are thus free to use other agencies. In theory, therefore, the AERES could also have a position on the Austrian market for quality assurance. With the revision of the university reform in autumn 2008, the AQA could grow. One of the weaknesses of the reform, according to AQA, is the absence of quality control procedures for internal evaluation, which is required by the reform, but implemented by the establishments themselves. The functioning of

each of the four components of the Austrian higher education system (universities - 80%/FH - 12%/private universities - 2-3%/teaching universities) structure the work of the AQA.

Universities being a majority of higher education, a significant part of work of the agency is reserved for the evaluation of all or part of universities, and especially for the assistance in internal evaluations. The AQA developed a procedure termed AQA-Audit for this purpose. Following the audit, the university receives a report, comments on it, and proposes measures of improvement.

For the FH, the AQA may be requested to prepare the evaluation of a project. The agency chooses the experts and conforms to the Council's decision. This latter generally follows the conclusions of the AQA. The downside of using the AQA process prior to opening a project inquiry is the slowness of the procedure. It takes from nine to twelve months for the accreditation of a new project. Universities are not required to get accreditation for their programs -- the triennial contracts of performance which they sign with the State have "value" of accreditation.

Source: February 2008

<http://www.aqa.ac.at>

Electronic Bulletin February 13, 2008

1.3 The Austrian Academy of Sciences

The Austrian Academy of Sciences, created in 1847 as a company of scientists, is increasingly active today as a research organization. The Academy is the most important extra-academic research organization in Austria and it supports young researchers with grants of up to 50 K Euros for three years. *The Academy* supports conferences, research, the publication of periodicals, and collections of books. It is an organization of research institutions (64), commissions, research units (3 years), institutes, companies and centers that join together to address related matters.

In September 2007, the Academy counted 639 members, including 165 with voting rights.

Research topics: space, earth science, physics, ecology, mathematics and life sciences; archaeology and antiquity, Asia and social anthropology, culture, Middle Ages, modern and contemporary history, social sciences and linguistics. The Academy had approximately 1,000 scientific personnel in 2006.

Research institutes: Institute of Molecular Biotechnology (IMBA - Josef Penninger, lately ranked among the 10 top world scientists); Institute of Quantum Optics and Information (IQOQI - Anton Zeilinger); Institute of Physics High Energy (HEPHY – partially involved with CERN), Institute of Space Research (IWF), Vienna Institute of Demography (VID including IIASA and INED)...

The Academy was reformed last January to make decision procedures and administrative execution more effective. A new body for the consultation and supervision of international membership has been created as the Scientific Council. Since 2005, there has been a Senate-like intermediate body between the Academy, the State, the private sector and the international scientific community. This innovation, will integrate more than 70 of the best young researchers into the Academy.

Budget: The Academy has a budget of about 85 M Euros, of which 80% is from the State. One of the motivations for the reform of the Academy was to bring it in to line with the reform of the universities in 2002 (UG2002). The spirit of the UG2002 has reinstituted dialogue between the Academy and the State which is expected to result in closer quantification of the activities of the Academy (Wissensbilanz) The current president, Mr. Peter Schuster, recognizing the interest of Wissensbilanz nevertheless warns not to underestimate the other less quantifiable achievements. Just as the UG2002 created a framework supporting the specialization of universities, the budgetary allocation for the Academy must contribute to the same aims. In the future, the budget should be quadrennial and increase under the leadership of the Minister for Science and Research, Mr. Hahn, an ardent defender of the objective of 1% of the GDP for fundamental research in 2020.

Academy Objectives such as research organization (i) to supplement the portfolio of university research by targeting scientific fields that the university has more difficulty supporting (e.g. space); (ii) to develop research units which collaborate narrowly with international organizations, as modeled by HEPHY-CERN; (iii) to develop the disciplines which meet the societal needs, such as molecular medicine; and (iv) to reinforce the disciplines that excel in the universities with new units.

Sources: March 2008

Electronic Bulletin, March 10, 2008 and Peter Schuster, President of the Academy of Sciences - Phone: (+43 1) 51581/1202, 1203 - Email: peter.schuster@oeaw.ac.at - Web : <http://www.oeaw.ac.at>

1.4 Research Policy Priorities in Austria

The policy of research evolved/moved in-depth these last years. Among the major facts, one counts the university reform of 2002 (autonomy/reinforced governorship/ specialization/ internationalization/ competition between universities), the emergence and the simplification of the agencies of financing, and the participation increasing in the European space of research.

It is thus in an already strong dynamics that the new government took its functions in January 2007. With in background an interrogation: until in the years 1990, the economy Austrian, flourishing, thus rested to some extent on a system of atypical innovation (fast adaptation and continuous improvements of foreign technologies), effective but risking to be it less in the future, according to the political community. Also, were the reforms carried out in time to avoid a possible unhooking of the old system?

In this context, great coalition SPO-OVP agreed on a program of government formulating two requirements for research:

- a budgetary reinforcement in order to reach 3% of the GDP in 2010;
- to continue the committed reforms of structure these ten last years.

Resulting measurements will have to hoist Austria on the level of the producer countries, an autonomous way, and advanced technologies and to promote Austria like "Wissensgesellschaft" (company of knowledge). According to the program, Austrian research will fit thus in univers view, in coherence with the diary of Lisbon, and will profit with the growth and employment.

The current Minister for Science and research, in load of 69% of the governmental budget R&D, Mr. Hahn, OVP, active defender of fundamental research, initiated in autumn a 2007 great national debate, Forschungsdialog, in order to refine the strategy evoked above. Its ministry, also responsible for the higher education, moreover considering allotted a budget in rise of 14% for the years 2007-2008 compared to the preceding budgetary period, carrying it to 3.54 billion euros in 2008. These political realities reflect a sharp will to reinforce research quantitatively and qualitatively.

Recent evolutions or to come: the amendment with the law of reform of the universities of 2002 (2008); new centers of competence for the industrial research (2008) and clusters of excellence for fundamental research (2010); Institute of Science and Technology Austria (2008); reforms of the Funds of support for fundamental research (2005) and of the Academy of Science (2008); evolution of the right of the foreign researchers (2007); the general evaluation of the governmental programs (2007-2008); Forschungsdialog (2007-2008); funds of technological offensive III (2006-2010) etc.

Sources: March 2008

Electronic Bulletin, March 10, 2008 and Mathieu Girerd, service scientifique et technologique de l'Ambassade de France en Autriche - Phone: (+43 1) 50 27 53 24 - Email: mathieu.girerd@diplomatie.gouv.fr

1.5 Call for 2008 Proposals in the Hubert Curien Amadeus Mobility Program (Austria)

The program of mobility Hubert Curien (PHC) Amadeus intends to finance research in order to develop the scientific exchanges and technological of excellence between the research laboratories in France and Austria. The program supports the new cooperation between young teams while dealing with the international overhead, i.e. mobility (subsistence allowances and travel).

Thus the researchers wishing to establish scientific cooperation between France and Austria are invited to submit their projects to the Egide association, for the French researchers, and to the Austrian Service of the University and Scientific Exchanges (OAD), for their Austrian colleagues: the two countries launched at the end of February the call for 2008 projects of the PHC Amadeus.

The PHC Amadeus is managed jointly by the OAD and the Egide. The candidates' files must thus be deposited jointly by French and Austrian partners, these partners being research laboratories attached to educational establishments, research organizations or companies. All the scientific fields, social sciences included are concerned by the program, which covers the stay and transport charges for an amount of about 2,000 to 3,000 euros per annum.

Sources: March 2008

Electronic Bulletin, March 10, 2008 and <http://www.egide.asso.fr/fr/programmes/pai/dospai/> - Raoul Mille, Scientific and technologic Service at the French Embassy in Austria - Phone: (+43 1) 50 27 53 35 - Email: raoul.mille@diplomatie.gouv.fr

1.6 Austria Comments on the Green Book of the European Research Space

With the April 2007 publication of the European Space Research (EER) Green Book, the European Commission initiated a participative debate with primary contributions from the scientific, technical, and academic world of the EU, as well as the opinions of the Member States.

In France, the Center for Strategic Analysis (CAS) led a national debate to decide on "a competitive EER at the service of the European Community" and proposed three orientations:

- to integrate in the EER simultaneously into public and industrial research,
- to build a shared vision of the EER, and
- to support "excellence" and "mobility".

The complete publication of the CAS is available online [see below, 1].

Representatives of Austria's scientific and technical research Committee of the Council of EU (CREST), support the view that the EER is a victim both of its success and of its complexity. Austria invites a new partnership between the EU and the Member States which would have as a reference a "vision 2020".

If one refers to the original publication of January 2000, "Towards a European Space Research", Christian Seiser of the Austrian Ministry of Science and of Research (BMWF) estimates that most of the objectives have been reached. So what would the expression "construction of the EER" mean in 2008? Actually, there are many documents or initiatives which followed one another since the year 2000, without a clear and shared vision emerging.

There is no such common reference point about the place of the ERA vis-à-vis national policies and European innovation or education, the Lisbon strategy. Austria is known to develop a new partnership between the EU and member states around a shared vision and corresponding to a follow-up procedure involving more policymakers.

For example, there is no common reference point regarding the role of the European Research Agency vis-à-vis national or European policies for innovation or teaching in the Lisbon Strategy. Austria wishes to develop a new partnership between the EU and the Member States around a shared vision and corresponding to a follow-up procedure involving more policy makers.

The role of the roadmap of this new vision would be to support the political dimension of the EER. This roadmap should describe each initiative clearly. It would identify each element for the EER, the political objectives, the quantitative/qualitative indicators, and the expected strategy at the national and European levels.

The roadmap could serve as a basis for discussion of the European agenda. It would lead to a debate on the EER with the informal council competitiveness in autumn, an evaluation by CREST of the reform research policies of research in December, a report on progress of the Lisbon Policy at the end of the year, a summary of the key points of the competitiveness council in February and the presentation of the revised strategy to the council of the Heads of States and governments in March.

Sources: April 2008

[1] CAS Publication: <http://redirectix.bulletins-electroniques.com/V9H2I>

Christian Seiser, Austrian European responsible Europe for Research at the Ministry for Science - Phone: +43 1 53 120 6730 - email: christian.seiser@bmwf.gv.at and Electronic Bulletin April 16, 2008

1.7 Support for research in humanities, culture and social sciences (Austria)

The Council for Research and Technological Development (RFT) has recommended that the Austrian government provide greater support for research in the humanities, social sciences and culture. (German acronym GSK "Geistes -, Sozial- und Kulturwissenschaften").

The RFT noted current efforts, particularly by the Austrian Agency of Support for Fundamental Research (FWF), but noted that only a small part of the measures recommended in 2003 have been implemented, resulting in this update of its recommendations.

According to the RFT, the recommendations address three sets of problems:

- the financings are short-term and fragmented;
- there is insufficient support for the science programs and range of themes;
- and the work completed in the GSK is not strategically used by the policy-makers.

This situation leads to a structural fragmentation, both from the point of view of the research contents and topics as well as from the perspective of organizational inefficiency. Moreover, the allocation of resources is ambiguous and the research results lack clarity. Finally, the boundaries between fundamental and applied research (and university research and extra-academic research) are particularly impermeable.

Among the specific RFT recommendations are the following:

- Prioritize research themes with existing and long-term social issues (immigration, aging, cultural clashes, etc.)
- Structural reform of the GSK and better strategic planning;
- Harmonize research projects with a 3-year time-to-completion for doctoral degrees;
- Encourage private sector support of research via tax incentives.

Figures on the GSK in Austria

The GSK represent a total of 583 active institutes, of which 272 are within universities, 36 are under the auspices of the Austrian Academy of Sciences, and 17 are part of the Ludwig Boltzmann Society. The sector employs 7,858 researchers, with 5,334 in the university institutes and 2,525 in the extra-academic institutes.

Sources: May 2008

Dr. Ludovit Garzik, Austrian Counselor for Research and Innovation -

Phone: +43 1 713 1414 10 - email: l.garzik@rat-fte.at

- RFT Recommendations, <http://redirectix.bulletins-electroniques.com/QB8cz>

- GSK Study in Austria, <http://redirectix.bulletins-electroniques.com/TPuiu>

Electronic Bulletin, May 9, 2008

1.8 Austria Develops National Research Goals

After one year of animated debate on research (Forschungsdialog), the Austrian Ministry of Science and Research (BMWF) published its report. Just a few days before major national elections, the proposals,

called "messages for the future" certainly contain valuable suggestions. The legislature, however, has an opportunity to reorganize the ministries to centralize the management of research with the BMWF.

The recommendation provide a strategy for the development of the 2020 plan to raise Austria into the top tier of the European Instrument Panel of Innovation (TBEI), by consolidating and developing as much as possible regular increases in the research budgets. The Framework 7 Plan (FP7) set a goal of 3% of GDP invested in R&D. Austria, already at 2.6% in 2008, is seeking to exceed this goal. The country also wishes to reach 2% of the GDP in higher education and 1% in basic research. The following ten resolutions translate the message of the future formulated by the BMWF in the document "Zukunftsbotschaften of Forschungsministers":

1. To bring Austria up to the top tier of European nations;
2. To support additional employment in research fields;
3. To strengthen basic research in Austria;
4. To develop higher education to meet the demands of tomorrow;
5. To develop a comprehensive excellence initiative;
6. To seek more service to society;
7. To increase interactions between science and economy;
8. To prioritize sites where research is required for companies to succeed;
9. To position Austria in the global science arena;
10. To improve efficiency and effectiveness of the research system.

The 2020 plan should be presented at the Alpbach European Technology Forum next August 2009.

Sources: September 2008

Electronic Bulletins, September 11, 2008

Mathieu Girerd, Science Section of the French Embassy in Austria - Phone: +43 1 5027 5324 - email : mathieu.girerd@diplomatie.gouv.fr

- Documents from the Forschungsdialog,

http://www.bmwf.gv.at/submenue/forschung/oesterr_forschungsdialog/

1.9 SEE-ERA.Net Plus: Balkan Countries in EU Cooperation (Austria)

SEE-ERA.Net Plus will launch a united call European research projects (a score of projects relating to agriculture and the TIC applied to the environment for a support of 3.5 million Euros) in which will include all the countries of the West Balkans. The consortium gathers 17 regions of 14 different countries of the European Union, the associated States, and of all West Balkans on the basis of the SEE-ERA.Net European project and with its regional cooperative program with the Europe of South-East (ReP-SEE).

Scientific priorities will be selected according to the regional needs of the participating countries and the priorities of the 7th PCRD, with an emphasis on excellence and increasing partnerships between the European Union and the West Balkan nations.

SEE-ERA.Net: The SEE-ERA.Net project is a project of the 6th PCRD financed by the European Commission and coordinated by Austria (Center for Social Innovation) pursuing the following goals:

- to improve the cooperation of research in Europe by facilitating the integration of the South-East Europe in the European space research;
- to develop the existing bilateral programs via a multilateral coordination;
- to develop the cooperation in interregional research according to the principles of stabilization and association of South-East Europe;
- and to contribute to the roadmap "*EU-Balkan countries Action Plan in Science & Technology*".

For this purpose, the project will focus on the systematic exchange and dissemination of information and best practices of bilateral research activities; analysis of researchers, organizations and political decision makers in the target countries; the improvement of the political dialogue on the integration in the European space research of the countries of West Balkans; and the identification of complementary

approaches followed by the implementation of instruments and united initiatives associating the joint research calls.

On October 23, 2008 the launch of SEE-ERA.Net Plus took place in Vienna. The project members met to determine the governing structure, to choose the priority sets of themes, and present the four phases of the project by the project leaders (preparation of call, launching of call, management of call and diffusion of the results, analysis of 1st call and proposals for a continuation). France, along with Serbia, will be responsible for evaluating the SEE-ERA.Net Plus and for formulating proposals for a development (4th phase).

Sources: October 2008

<http://www.see-era.net>

Electronic Bulletin, October 28, 2008

1.10 Financing Agency of the Tyrol (Austria)

Austria's federal nature is reflected in its research financing. Although the Austrian Science Fund (FWF) which is the national agency that supports basic research, and the Austrian Research Promotion Agency (FFG) which supports applied research, provide the bulk of competitive funding, the Länder (provinces) also directly influence research, thanks to regional scientific funds. This is the case in Tyrol where during the past eight years the Tyrolean scientific funds have an annual budget of 871,500 Euros (compared to approximately 160 million Euros of the FWF and a half billion for the FFG).

According to the Tyrolean law, the Funds must support the scientific research and young researchers, this within the EU Lisbon accord, which recognizes knowledge as a strong stimulus for economic development and employment. As a regional variation of the Lisbon accord, the Funds have been assigned by the state for the mission of promoting the research projects aimed at addressing local economic, environmental, cultural, or social problems. Funds are allocated within the priorities of the recipient scientific institutions to the extent that they support scientific growth and mobility and interdisciplinary, inter-regional, and global economic cooperation.

The projects' leaders belong to one of eight scientific institutions partners, each one holding a seat at the council in charge of selecting the projects. The University of Innsbruck, the Medical University of Innsbruck, the private University UMIT (300 students), the three universities of applied sciences in Tyrol, and all of the schools for teacher training are on the council. Without being explicitly stated, the orientation of themes and financing are constrained by the profiles of these institutions. The projects cover a broad range of disciplines from theology to life sciences including to the creation of start-up companies [eds. Note: Not sure what a theological start-up would entail.]

Every year, the Fund approves 30 to 40 projects with an average funding of 20,000 Euros and three years duration. The three universities receive 75% of the awards assigned to the support thesis related research. The funds allocated to universities of applied sciences are often devoted to the launching of starts-up. The training institutes may use Funds to support training activities via research. About half of the financed projects receive funds from other sources.

Sources: December 2008

Electronic Bulletin, December 4, 2008

Mag. Gregor Netolitzky, Funds Manager - Phone: +43 (0) 512 508 2575 - email: gregor.netolitzky@tirol.gv.at

2 Belgium

2.1 Innovation in Belgium

Innovation in Belgium is about at the European average in terms of percentage of the GDP devoted to R&D and of patents filed. However, Belgium has a large population of scientists and engineers. Belgium

has the highest rate of scientists in Europe. In an survey conducted by the American magazine "The Scientist", Belgium was selected the most favorable country to undertake scientific research.

The innovation index is composed of 25 indicators. Belgium, with a measure of 0.47 is very close to the European average (0.45). It is below the European average with regard to the public investments in R&D and in the export of high technology products. Belgium is at the European average in terms of intellectual property and efforts are underway to transform the research into innovation by encouraging patent applications in high tech fields and those with important economic consequences.

Eurostat published in its 2008 edition "Science, Technology and Innovation in Europe" which tracks the R&D expenditures in Europe. These seem to be stable during the past 3 years and correspond to 1.84% of the GDP. The objective is to reach 3% in 2010 and, as announced in the Lisbon strategy, to become *"the most competitive economy in the world and to arrive at the full employment before 2010."*

Sources: August 2008

Electronic Bulletins, August 7, 2008

Site web du portail belge pour la recherche et l'innovation : <http://www.research.be>

3 Czech Republic

3.1 Construction of a New Biotechnology Center in Prague (Czech Republic)

The Czech Academy of Sciences [1] and the Charles University of Prague (U.K.) [2] signed an agreement last December to build a new Center of Biotechnologies and Biomedicine (BIOCEV) in Vestec on the outskirts of Prague. This research center, which should receive European financings, will host top-level Czech and foreign scientists. A particular emphasis will be on stem cell research.

The estimated cost for the first phase of construction is 3 Czech billion crown (approximately 115 M Euros). It will be mainly financed by European funds, but it is hoped that the ongoing costs will be taken up by companies involved in the search and the production for vaccines, which will contribute to the operation of the Center. Some are already positioned favorably and considering, or are already have been set up near the BIOCEV.

The Prime Minister, Mr. Mirek Topolánek, who attended the signing ceremony, considers that it is up to the Government to support initiatives of this kind, which aim to strengthen Czech research capacity by supporting excellence. He pleaded for reform of research institutions and universities to strengthen the management structures and promote the emergence of high level projects.

A Center of Biomedicine and Transplantation will be built alongside BIOCEV within 5 to 6 years, in North Bohemia, Terezín and Litomerice. Its construction will cost 1.2 billion Czech crowns (46 M Euros), of which 15% will be supported by the State, the remainder being financed by European funds.

University Charles of Prague: The University Charles of Prague was founded in Prague on April 7, 1348., is the oldest university of Central Europe and today comprises 17 schools, 42,000 students (including 6,000 PhDs), that is to say a fifth of the students of the Czech Republic [3].

Source: February 2008

[1] Czech Academy of Science (Akademie ved České republiky) : <http://www.avcr.cz>

[2] University of Charles de Prague (Univerzita Karlova v Praze) : <http://www.cuni.cz> and

[3] [http://fr.wikipedia.org/wiki/Univerzitř Charles de Prague](http://fr.wikipedia.org/wiki/Univerzit%C3%A9_Charles_de_Prague)

Electronic Bulletin, February 20, 2008

3.2 Towards Development of Legislation on State universities? (Czech Republic)

Czech Prime Minister, Mirek Topolánek, wants to make modifications to the law relating to the operation of public universities. This reform, should it happen, would seek to make it possible for these establishments to generate profits.

This proposal is part of a larger project to connect public and private investments in Education, Innovation, Research, and Technology. In particular he wishes to support the participation of the private sector in the national R&D effort, which remains well below the average for the rest of Europe.

Source: February 2008

Electronic Bulletin, February 20, 2008

3.3 Centers of excellence coming to the Czech Republic

Several centers of excellence (about 5), whose objective is to make it possible to develop cutting-edge research, should be created soon in Czech Republic. These centers will be financed in part by the European fund for science and research in support of innovation.

An international committee will be in charge of selecting the projects and sites selection. Vestec, near Prague, is the first to have been selected. It will host the center of biotechnologies (BIOCEV), [1] while Brno, Pardubice, and Ostrava should also see a center excellence being established on their territory. In addition to biotechnology, centers for material science, information technology, and energy should be proposed.

Source: February 2008

Electronic Bulletin, February 20, 2008

3.4 Opening of a New Interactive Scientific Museum in Plzen (Czech Republic)

The museum "Techmania", presented like a Science Center, was built through the collaboration of the University of Plzen and the company Skoda Holding.

The Czech Republic has always shown a strong interest in the technical disciplines, but in recent years curiosity in this field has weakened. The designers of "Techmania" wanted to boost interest in the technological sector by attracting the general public and in particular young people.

The museum aims to be educational and the exhibits, which allow interactivity between the visitors (via their bodies and their movements) and the scientific installations. This space, covering 10,000 square meters, is one of largest in Europe

Source: February 2008

Techmania : <http://www.techmania.cz>

Electronic Bulletin, February 20, 2008

3.5 The Czech Academy of Science Supports Three Large Scale Research Programs

The Academy of Science of the Czech Republic announced that it was going to support three research programs within the framework of the operational program "Research and Development for the Innovation." These three projects, with a total cost of almost 15 billion crowns (approximately 1.2 billion Euros) are: the Synchrotron of Central Europe (CESLAB) ^[1] located at Brno, the European project of super laser, the Extreme Light Infrastructure (ELI) ^[2] and the Center for biotechnologies and biomedicine (BIOCEV), which will be built in Vestec (central Bohemia) in cooperation with Charles University.

If the first two projects have a European scale, the last is related especially to Central Europe. BIOCEV should make it possible for scientists to accommodate foreign researchers. The Czech Republic should receive 2.4 billion Euros from the European Commission, within the framework program "Research and Development for the Innovation", which will be signed by the end of the summer. The first projects will start this autumn. The vice-president of the Academy of Sciences, Jiri Drahoš, pointed out that these European funds should be invested in infrastructure for world-class research.

Sources: March 2008

Electronic Bulletin, March 26, 2008 and

[1] <http://redirectix.bulletins-electroniques.com/djAz6>

[2] <http://www.extreme-light-infrastructure.eu/>

3.6 Czech research arises to Brussels

The Czech Liaison Office for the Research and Development (CZELO) has started to set up thematic and informal workshops with Czech and European commission experts. The objective of this initiative is to present Czech researcher and research institutes to the EC in Brussels, to allow a better comprehension of the Framework Programme, and to improve the participation in joint projects. The workshops are organized in cooperation with the technological Center of the Academy of Science of the Czech Republic in charge of the project NICER (National Information Center on European research).

The Czech speakers will use the occasion to present their research organization as well as research activities which could inspire the Commission during the preparatory phase of future work programs. They will receive information on the recent developments of the 7th PCRD and European research. They will be able to establish contacts with the Commission.

The excellent potential of the Czech Republic as well as its strongest research sectors will be presented to the representatives of Brussels. In a long-term prospect, the Czech scientists could be used as reviewers or as participants in expert committees of the Commission.

In its pilot phase, the workshops subjects will correspond to the part of "Cooperation" within the 7th PCRD and will have to be related to the current work programs. The participants can come from the Czech Republic or other countries participating to the 7th PCRD.

Sources: July 2008

Electronic Bulletin, July 9, 2008-07-10

Contact: Anna Vosecková, voseckova@tc.cz

3.7 US-Czech S&T agreement

Parallel to the signature of an agreement allowing the installation of American radar on the Czech territory, a scientific and university cooperation agreement will be signed between the Czech Republic and the United States. This agreement, similar to those binding the US to the United Kingdom, Australia and Japan, should open new opportunities with the scientists and Czech companies. Thus, they will have access to modern technologies and discoveries in American laboratories. The signature of the two agreements, by the American Secretary of State Condoleezza Rice and the Czech Foreign Minister Karel Schwarzenberg, is scheduled in Prague in July.

The Pentagon should allocate dozens of million of crowns to the Czech scientific circles. Although the two treaties are closely bound, Vladimir Marik, chief of the department of cybernetics at the Technical University of Prague (CVUT), estimates that the United States would finance research projects even if the agreement concerning the radar was not concluded. Marik was charged by the governmental Council for Science and Czech Research to select the best Czech research centers to cooperate with the United States. His list, which counts 77 centers, should be reduced to 50 by November.

The Americans are mainly interested in nanotechnology, biotechnology and defense against the biological weapons, robotics, laser technologies, and the capacity of the Czechs to simulate certain situations such as terrorist attacks. The majority of the projects relate to the defense industry, but Marik announced that the results of this research can easily be applied to civil industry. He adds that the United States also finances research in the fields of medicine and medical technology.

The Americans had initially intended to fund the Czech research as compensation to the radar installation. According to Marik, however, they discovered that the scientific level of the Czech Republic was high, which led to the desire to establish long-term cooperation. Marik feels that even if the radar project hadn't succeeded, the United States would allocate money to individual projects.

Sources: July 2008

Electronic Bulletin, July 9, 2008

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Web site for the Foreign Czech Ministry: <http://www.mzv.cz/http://wwwo/mzv/default.asp?idj=2&amb=1>

Web site for the Czech Research and Development Council:

<http://www.vyzkum.cz/FrontClanek.aspx?idsekce=630>

Additional information at: <http://www.foreignaffairs.org/>

3.8 The Race for European Financing (Czech Republic)

Czech researchers should profit from a billion crowns coming from the European Union

The Czech Ministry of Education, Youth, and Sports is responsible for the research sector and it faces criticisms regarding the process of allocation of European Union research funds. Indeed, 2.7 billion Euros devoted to the development of science and research over the period 2007-2013 are available to be spent in the country outside of the capital.

These funds are allocated by the "Operational Program for Science, Research and Innovation", which is responsible for negotiations and which has delayed in making the allocations. This delay had already caused the resignation of the Minister, Dana Kuchtová, in 2007, and threatens the mandate of the current Minister, Ondřej Liška. As tensions increase, the Ministry promises an imminent end to the negotiation.

The choice of selection is of great importance since the program also comprises a list of projects (estimated at more than 50 million Euros) that the European Commission wishes to select itself. These projects are decisive, because they will determine the orientations of Czech Research and Science for the ten next years. Twelve projects have already been preselected, but their budgets exceed the 2 billion Euros so it is clear that not all can be granted. The selection will be made after recommendations from international experts at European institutions such as the Max Planck Institute, the French Academy of Sciences, the Fraunhofer Institute and others.

Jan Vitula, the person in charge of the distribution of the funds at the Ministry, is facing growing tensions in this competition. Criticisms are growing vis-à-vis the opacity of the selection process and the allocation of the funds. According to the deputy, Ivan Ohlídal, a project related to a synchrotron with Brno (CESLAB) risks elimination due to the lack of impartiality from Jan Vitula. Mr. Vitula favors a private partner in the project from the Technological Institute with Brno, which is also sponsored by the Regional Office for the Development of South Moravia where Mr. Vitula happens to be the President of the Board.

This is certainly not the only conflict of interest likely to be generated in the race for financing and the selection process in the coming weeks promises to reveal additional problems.

Sources: November 2008

Electronic Bulletin, November 7, 2008

<http://www.aktualne.cz>

3.9 Chemist to Chair Czech Academy of Sciences

On December 16, 2008, Mr. Jiri Drahos, Professor of Physical Chemistry at the Institute of Chemical Processes, was elected by the Academic Assembly of the Czech Republic, to the Presidency of the Czech Academy of Sciences (AVCR). The Academic Assembly comprises 258 members: 189 from the Institutes of the AVCR and 69 members from outside, representing the State, universities, industry, economic circles, as well as scientific personalities.

The nomination of Jiri Drahos, currently Vice-president of the Academy, must be ratified by the President of the Republic Czech, Mr. Vaclav Klaus. Prof. Drahos will officially assume his new functions on March 24, 2009. He will succeed to Prof. Vaclav Pacès, who did not wish to run again.

Mr. Drahos wishes to improve cooperation between the Academy and universities in the fields of research and innovation. In addition, he wishes to welcome high level foreign researchers to the AVCR institutes and to stimulate the participation of these institutes at the international level, in particular with European projects. Finally, he is committed to the application of basic research and to technology transfer.

The Academy of Science of the Czech Republic (AVCR), resulted from the 1993 schism of what was then the Czechoslovakian republic. First established in 1952 on the model of the Royal Scientific Society of Bohemia (1784-1952), it has a number of financial and political privileges (like the Academies of Science of the communist adjoining countries at the time) that function to the detriment of the universities. This competition between Academy and universities is still present, despite efforts to share resources and develop mixed units similar to those found between CNRS and French universities.

With its 7,600 employees (including more than 4,250 researchers), the Academy of Science is the principal Czech public research institution. It counts 53 research institutes, covering all the fields of exact sciences, human or natural. These institutes are divided into three large scientific sectors: Mathematics, Physics and Earth Sciences; Life sciences and Chemistry; and Social sciences. The AVCR enjoys very broad autonomy with respect to the public authorities. Indeed, it depends administratively only on the government. In addition, it lays out its own line of credit in the finance law of the Czech state. Its Academic Council of 17, which is elected by the Academy Assembly for 5 years (current mandate: 2005 - 2010). The Academy owns one of the most prestigious libraries in the country, a publishing house, as well as three bookshops (Akademia).

Sources: December 2008

Electronic Bulletin, December 22, 2008-12-23

<http://www.avcr.cz>

4 Denmark

4.1 Danes Head the European Quasimodo Project

A new European research project directed by the University of Aalborg in Denmark, envisions developing an embedded information processing system over the next three years. This project is entitled "Quasimodo", short for "Quantitative System Properties in Model-Driven-Design of Embedded Systems." It is subsidized with 2 million Euros by the European Union, within the FP7 program for communication and information technologies. The total budget is 2.7 million Euros.

The objective of Quasimodo is to heighten the competitiveness of European companies which develop embedded systems, a market expected to grow from 279 billion Danish Krone (~\$55B) in 2004 to 536 billion (~\$105B) in 2009. Danish professor Kim G. Larsen, of the University of Aalborg, explains that the leadership responsibility is in recognition for the research at the Center for the Systems with Embedded Software (CISS) and at the department of data processing of the University of Aalborg. The partners in the Quasimodo project are private companies in Denmark, of Germany, the Netherlands, as well as France.

Source: February 2008

<http://www.quasimodo.aau.dk/>

Electronic Bulletin February 13, 2008

4.2 Copenhagen Business School Wins Innovation of the Year Award

The Danish Ministry of Science, Technology and Innovation decreed on January 31, 2008 the title of "Innovative University of the Year" at the commercial school CBS (Copenhagen Business School). It is the second time that CBS receives this title (first time in 2004) and the fifth time that the Ministry awarded this title. The reasons of this nomination come in particular from:

- Increase in the number of students having started their own company in the past 5 years;
- Number of female students.

Source: February 2008
<http://www.cbs.dk>
Electronic Bulletin February 13, 2008

4.3 Danish International Conferences

International Conference on Climate Change, April 5-6, 2008 in Aarhus

An international conference on "Biodiversity Informatics and Climate Change's Impacts on Life" is announced for April 5-6, 2008, at the University of Aarhus. The conference will address the consequences of global warming on Earth and the natural systems which maintain human societies. The event is organized by the University of Copenhagen, the University of Aarhus and DanBIF (Danish Biodiversity Information Facility).

CLEANTECH Conference in September 2008 in Copenhagen

The topic of the first conference of COPENMIND in September 2008 will be "Cleantech." Cleantech is a term used to describe products or services which improve effectiveness, performances, and productivity by reducing cost, investment, energy consumption, waste, and pollution. The 2008 conference will welcome more than 100 universities from 6 continents who will present their technologies and expertise to an audience of more than 400 representatives of leading companies in "cleantech." Danish and international companies will have the opportunity to purchase technologies and to find inspiration for new product development.

Scientific Conference on Climate -- March 10-12, 2009 in Copenhagen

The University of Copenhagen has organized a scientific conference in Copenhagen under the heading "Change climatic: Total risks, Challenges and Decisions," from March 10-12, 2009. This conference is organized by the ten universities of the network IARU ("International Alliance of Research Universities"), which includes ten elite and internationally open world universities. The conference aims to bring together 4,000 researchers, students, business leaders and policymakers. The goal is to identify and synthesize the scientific, technological and political policies necessary to ensure the sustainability of global communities in the coming decades. The results of this conference will be compiled in a report to be submitted to the policy makers meeting in December 2009 in Copenhagen for the COP 15.

Source: February 2008
Electronic Bulletin February 13, 2008

4.4 Telescope at the top of the Greenlandic Icecap (Denmark)

At the end of August 2008, the astrophysicist Kristian Pedersen of Niels Bohr Institute (University of Copenhagen) completed an observation mission on the top of the Greenland icecap. His profession had previously taken him to destinations with a more moderate climate, as Chile or the Canaries, where the principal large European telescopes are located.

But the world's astrophysicists may have to deal with cold polar weather sooner since Greenland seems to be an ideal location for a new telescope. "The climate at the top of the icecap is very stable, the air is very dry and there is an absolute night during six months per year", explains Kristian Pedersen. It is one of the places on Earth to offer the most precise images of the universe.

The idea to install a telescope in this autonomous province of Denmark is not recent. But until now no mission had been carried out to measure interest in the project. The current project can be realized thanks to a financing from the IDA (Instrument Center for Danish Astrophysics).

Michael I. Andersen and Anton Norup Sørensen, specialists in astronomical optics at the Niels Bohr Institute, designed and produced a small telescope especially for the mission. Thus equipped and provided with jackets and polar boots graciously lent by their glaciologist colleagues, they left on July 20 for the American research base, Summit, which rests on more than 3 km of ice.

The base is equipped with a 50 meter tower installed and used by Swiss climatologists. Because of strong climatic turbulences on the surface of the icecap, the team installed its 20 cm telescope 40 meters above the ice surface. The objective is to precisely measure images at the site as it points directly at the polar star – it will not be used for other observations.

The temperature at the base of Summit can reach -60 C° in the middle of the winter. This freezing cold is one of the elements which appealed to astrophysicists at the Greenland center because it allows them to capture the very weak infra-red emissions. A telescope a few meters in diameter could, under these conditions, allow observations of infra-red emissions from the most distant and oldest galaxies in the universe. The team now awaits the study of images of the polar star that the small telescope will provide 24 hours-a-day during next winter which will confirm the value of the project.

The future Greenland telescope would be complementary to the James Webb space telescope, which will replace the Hubble and whose launch is scheduled for 2013. It will provide exceptional sensitivity, but with a reduced field of view, thus allowing a very detailed study of a small number of stellar objects. The "ice telescope" will be used by astrophysicists to scan a much broader section of the sky and to discover new bodies which can then be studied in more in detail by the space telescope.

Sources: October 2008

Electronic Bulletin, October 16, 2008

5 Finland

5.1 Finns plan massive R&D increase to fight crisis (Finland)

While cuts to both public and private research and development (R&D) budgets are more than likely due to the current economic crisis, the Finnish government has announced plans to increase R&D investment to 4% of the country's GDP in an effort to combat the recession as quickly as it did in the early 1990s. The Finnish Science and Technology Policy Council, chaired by Prime Minister Matti Vanhanen, adopted a new strategy review of Finland's education, science, and technology and innovation policy in early December.

The review sets out an ambitious goal of increasing the country's R&D funding to 4% of GDP by 2011, with around 1.2% coming from the public sector. In 2007, overall spending reached 3.47% (€6.24 billion), with 30% coming from the public sector.

The overall EU goal is to increase research investment throughout the bloc to 3% of total GDP by 2010, with two-thirds coming from the private and one third from the public sector. But the EU 27 average has been stagnating at around 1.9% since the mid-1990s and has even decreased since 2000.

To pave the way for the 4% target to be achieved, the Finnish strategic review proposes an overall funding hike of €760 million by 2011.

The plan is to increase university funding by €330 million to boost basic funding and support local research infrastructure and researchers' career development.

The country's main funding agency for technology and innovation (Tekes) will also be given an extra €220m to help increase the number of R&D companies, support innovative SMEs and to boost business R&D in general amid economic recession.

The Finnish Academy will get an extra €80m to support its excellence units and, for the first time ever, the development of a horizontal program for sectoral R&D will be supported by €45m. Another novelty is proposed systemic funding for the development of a true research infrastructure policy in Finland, the lack of which has been identified as a hindrance to research performance.

Amid economic slowdown, it is increasingly important to emphasis knowledge, while the government needs to implement the plan more quickly, commented Finnish Education Minister Sari Sarkomaa.

Finland quickly got out of recession in the 1990s primarily due to heavy support for R&D. "We need the same courage now", Sarkomaa said.

Sources: December 2008

Published Tuesday 16 December 2008

<http://www.euractiv.com/en/science/finns-plan-massive-rd-increase-fight-crisis/article-178078>

6 France

6.1 News from CEA – India and France Sign Agreement for Reactor Research

On the occasion of the state visit of the French President to the Republic in India, the CEA (Atomic Energy Authority) and the Indian Department of the Atomic Energy (DAE) signed, on Friday, January 25th, a scientific cooperation agreement on the nuclear reactor research project Reactor Jules Horowitz (RJH). Through this agreement, India makes a commitment to participate at the level of 3 % to finance this installation intended to test the behavior of materials under irradiation



CEA/Cadarache

India is the eighth partner to take share in the project which previously brought together RJH CEA, the research institutes in Belgium, the Czech Republic, the Netherlands, Finland and Japan, EDF and the Areva French groups. In exchange for its financial participation, India will have guaranteed access to the experimental capacities of the facility to undertake its own research on the behavior of materials under irradiation. This agreement opens the way for future scientific collaborations between the two countries in this field of research.

The Jules Horowitz reactor, to be put into service at CEA-Cadarache by 2014, is a tool for strategic research in the field of the nuclear energy. One of the major assets of this facility capable of producing a very high flux of neutrons with a large element of fast neutrons is the flexibility of its "plateau" of experimentation that will enable it to recreate the physical and chemical environments of all the reactor families, present or projected. The RJH is designed to carry out a score of high performance experiments simultaneously.

The construction of the RJH involves an investment of 500 million Euros. Currently, 50% of the funding is provided by the CEA, 20% by the European and international partners, 20% by EDF (Electricité de France), and 10% by Areva group.

To find more about the RJH:

Article: [L'Europe à l'heure du RJH](#)

Press release from March 19, 2007: [Lancement de la construction du réacteur de recherche Jules Horowitz](#)

Press dossier published in March 2007: [RJH et prototype 4ème génération : expérimenter les systèmes nucléaires du futur](#) or PDF file available upon request to cpolliot@nsf.gov

RJH on the Internet web site at [centre CEA de Cadarache](#)

Sources: January 2008

6.2 Nicolas Sarkozy presents his analysis of the French research during a visit to the laboratory of the Nobel Prize Laureate Albert Fert

"I am here to ensure that the public money is well used and that its expenditure corresponds to the priorities of the nation." After having shaken up the university world in 2007, Valerie Pécresse starts a reform just as sensitive—to reform academic research without upsetting a population of researchers, mainly on the left, who have been hostile to the reforms engaged since 2005 and considered to be "unpredictable" by the French government. This afternoon, Nicolas Sarkozy visits the laboratory of the Nobel Prize of Physics Albert Fert, in Orsay.

In addition to the usual "homage of the Republic", to its more deserving children, the French president intends to discuss non-controversial subjects such as project financing, the need to evaluate researchers according to international criteria, the need to attract young talent and the simplification of the multi-mentor system, which characterizes French academic research.

But six weeks before the local elections, he will undoubtedly not go so far as to face the researchers on subjects which annoy them: the future of CNRS, the new missions of Inserm, competition between the universities and the publicly-owned establishments, and the evolving status of researchers as civil servants. Last Monday, his two scientific advisers, Arnold Munnich and Bernard Belloc, deterred him from showing himself as too aggressive towards a community always ready to show their teeth. "The capacity of Save the Research (SLR) to mobilize remains strong, and the researchers can drag lecturers of the universities in their wake", says Philippe Even, president of the Necker Institute and author of reports pointing out the qualitative collapse of French research in the life sciences. "The president knows where he wants to go, but he does not know how to pass over the multiple oppositions of the trade unions, SLR, and CNRS hierarchy" states an observer who knows well the complexity of this explosive issue.

The recommendations contained in the Attali report are viewed as true aggression by the majority of the trade unions. Most believe they have rebounded from an "unbridled and provocative liberalism" that foreshadows the true intentions of the President. The report by a former François Mitterrand's sherpa suggests a true cultural revolution: the abolition of the civil service status of researchers. "It is necessary to recruit and finance all the new researchers on four year contracts. No one will have more than two successive contracts. At the end of this period, the researcher could evolve to a long-term employment, a teaching position, or a job in the private sector".

These measures are inspired by the American system. On the other side of the Atlantic, civil service (tenure track) is granted only relatively late (around 40 years) and only to the best-- those who have shown by the quality of their work and their ability to direct [research] teams obtain this status. The others must retrain, with the majority moving into teaching roles.

Despite its apparent brutality, this organization has proved its worth. The Anglo-Saxon style universities currently produces the best basic research, form the best students and provide better transfer of academic research to industry.

But for the SNCS, a leftist trade union organization, the 43 members of the Attali commission--half of whom come from the private sector-- have concocted a "reorganization with a machete" which aims to set up an "Anglo-Saxon model, incorrectly interpreted". As for SLR, the reviews are much the same. The association has been transformed since its inception in January 2004 and now claims the support of 20,000 people willing to stand up "for a change of government policy." Pending the release of the report of the former Minister Francois d'Aubert, everyone sharpens their arguments and no compromise appears on the horizon.

In fact, the conflict between the government and the scientific world began in mid-1990, when many reports highlighted the undeniable loss of momentum of French research. Claude Allègre was the first minister to wade into the fray. Minister Jospin has boosted funding on fro research on two new fronts (FRT and FNS). This action earned him a reputation as an ultraliberal which he seems to fit. The SNCS also does not hesitate to describe the findings of the commission Attali as a judgment without appeal: "It's Allègre word for word."

The disagreement is mainly based on the mission assigned to the French system of research and innovation funded by the taxpayer. For unions and many researchers, it is a kind of public service that should give rise to two main functions: to irrigate the whole country and create stable scientific jobs. Researchers are regarded as national treasures who must be sheltered by a protective cocoon. Their status as pioneers of the future should isolate them from the economy, i.e., makes them free from any evaluation or sanction.

For almost twenty years, the system has lived under these rules and has been steadily losing ground at the international level. For the politicians, left and right, research is a strategic instrument in the service of the nation and the country's economic policy. It must produce high-level knowledge in selected disciplines and possibly lead to industrial spin-offs. All of this in an increasingly competitive international environment. And it gets more complicated. "We have long accepted a system where a protective egalitarianism functioned to ensure a level distribution of resources. In a time of scarcity, it becomes necessary to make choices, to distinguish the best researchers," says Jean-Francois Dehecq, who chairs the committee FutuRIS.

The situation is actually very mixed. According to official data, 20% of French researchers in the life sciences produce no new knowledge during their careers. But in the humanities and social sciences (SHS) it is even worse. "Thirty percent of researchers from SHS would never publish anything in their lives. Not even in "La Dépêche du Midi" [a local newsletter from the south of France], says Bernard Belloc ironically. At CNRS, the secretary general Alain Resplandy-Bernard estimated that 5% of researchers are a problem and must be "reformed."

According to Philippe Even, who has long been following the production of biologists, that percentage would be closer to 50%. A reform is needed, but it must be at the right tempo. Last year, the State has injected nearly 18 billion Euros in public research, or 1.03% of GDP. According to this criterion, and contrary to popular belief, France is better than any other European country. But in the current model, the return on investment for the taxpayer is lower by about 30% than Germany or Britain

Sources: January 2008

6.3 Pécresse Announces Tripling of France's GMO Research (France)

Valerie Pécresse [France's Minister of Higher Education and Research] confirmed the tripling of the funds for the study of transgenic plants. On her way yesterday to Orleans, to visit the National Institute of Agronomic Research (INRA) experimental plantation of transgenic poplars intended for the production of biocarburants, the Minister for Research, Valerie Pécresse, wanted to send a "strong symbolic message" to the scientists and also to the larger society.

"Last week the government took a balanced decision," she emphasized on several occasions. "On one hand, we applied the principle of precaution by suspending the transgenic culture of corn MON810 following the "interrogations" formulated by the High Authority to the GMO. But, for all that, we haven't put a stop to biotechnologies. We have, on the contrary, the duty to start research again in this field if we are to address the food and environmental challenges of tomorrow. While the Earth soon will have 9 billion people, France must keep its agronomic research running, which is the second in the world. It is a question of national independence."

Combining action with words, Mrs. Pécresse confirmed that a budget of 45 million Euros will be allocated over three years, (2009 to 2011), [for research on] vegetable biotechnologies within an active framework of requests for projects ranging from very fundamental to very applied research, via the Agence National de la Recherche (ANR) and INRA. The minister expressed a desire, moreover, that this effort be carried out jointly with Germany, which has just announced a multi-year research plan in conjunction with the private sector.

In addition to the 15 million Euros already allocated to ANR in 2008, Valerie Pécresse announced to Marion Guillou, general director of INRA, that the government will add 4 million Euros for two new centers

for excellence: the RTRA (Network set of Themes of Advanced Research) "Plants" at Montpellier and at the Center of genotyping of Clermont-Ferrand.

"Today, we are at crossroads", continued the minister, who expressed a hope "to learn from the 'Grenelle' [multi-party debate on environmental issues]". NGOs must recognize that the government took a step towards them by taking into account their concerns, but they must also let the researchers work in peace."

Pleading for "a general appeasement" on this issue, which has inflamed passions over the past ten years, Valerie Pécresse hopes that the forthcoming law on GMOs, which will be in the Senate on February 5, "[will] guarantee the transparency and safety and end once for all the "mistrust" that these technologies cause in the population".

As for the test fields that are regularly mown by the militant anti-GMO advocates, Valerie Pécresse, referred to the poplars which are too large to grow in a greenhouse, stating that they were "essential to study the behavior of the plants in various types of soils and climate". Accordingly, "a hundred hectares" of plantings closely supervised and supported by the future law would be enough, within France, to conclude this work.

It remains to be seen whether the promised funds will be sufficient to renew the researchers' diminished interest in this area. Last year, only six research projects on GMOs were submitted to ANR, compared to twenty in 2006.

Sources: January 2008

6.4 Science and Fraud (France)

Type "fraud" on Google and the search engine will list nearly 2 million pages related to the problems of the Société Générale Bank. Add "scientific" and the screen will announce only 250,000 references. Less publicized than those of finance, the mistakes in science are however legion. The most famous cases -- those of the South Korean biologist Hwang Woo-Suk, who had claimed in 2004, starting from faked results, to have successfully cloned a human, or that of the physicist Hendrick Schön of Bell Labs, author of at least sixteen articles "arranged" between 1998 and 2001 - are only the trees that hide the forest [e.g., the tip of the iceberg].

The problem is serious enough for the Ministry of Higher Education and Research has entrusted to a part of CNRS, Jean-Pierre Alix, responsible for relations between science and society, a mission to "scientific integrity". With a dual objective: to establish a diagnosis and propose remedies.

Although breaches of probity are as old as science, the impact of research on modern societies and economies today makes scientific institutions and governments concerned about what the Anglo-Saxons call [scientific] misconduct (or misbehavior). A symposium was held in February 2007 in Tokyo on the subject, sponsored by the Global Science Forum of the Organization for Economic Cooperation and Development (OECD). This was followed in September by an international conference in Lisbon, under the auspices of the European Science Foundation and the American Office for scientific integrity.

Statistics on malpractices are very sketchy. In France, they are absent. Especially as the dividing line between the venial sin (presentation of partial data, timely loan to another author, etc.) and the major ethical breaches (fabrication of results, falsification or plagiarism) is not clearly defined. But, says Alix, "all the studies indicate that these practices are increasing."

A recent investigation into plagiarism revealed that of the 7 million articles most quoted in the medical documentation database Medline, 70,000 cases (that is to say 1%) have a "high likelihood" [of being plagiarized, as] detected by a specialized search engine. Another American study, published in 2005 in the journal *Nature*, suggests that ethical breaches are much more frequent. Of nearly 8,000 researchers in the biomedical sector questioned under the seal of anonymity, not less than 33% of those answering admitted to unethical practices during the three previous years.

The range of behaviors is broad: falsified data (0.3%), unreported stock in a company (0.3%), plundering ideas (1.4%), unethical relationship with students or customers (1.4%), use of confidential information (1.7%), omission of contradictory results (6%), and modification of results at the request of a sponsor (15.5%) . The acknowledged faults, note the authors, are more numerous in mid-career researchers than for those starting out (38 % vs. 28 %), perhaps because the opportunities for fraud are greater and [established] scientists have a more assured feeling of impunity.

"Publish, develop and communicate", such are the three pressures that push the researchers to cross over the line. The threat of serious consequences does not end with loss of scientific credibility, but also can be found in industrial applications.

Some countries have begun to react by publishing [ethical] codes or procedures. At the National Science Foundation, a dozen people track the scientific fraud. In Germany, the Deutsche Forschung Gesellschaft employs a mediator to deal with disputes. England has established a commission on the integrity of biomedical research. Denmark, on the other hand, was the first European country to set up a committee against scientific "dishonesty".

France, despite the creation of ethics committees within the principal public organizations, *"is not out in front on this question"*, notes Jean-Pierre Alix. Rather than a report doomed to wind up in a drawer, he is planning to organize a symposium at the end of the year in order to "sensitize and involve the scientific institutions". A whole system is to be built, allowing the filing of claims, cross-examination, and a possible sanction. But he believes more in prevention and training in the rules of ethical conduct as early as during secondary education. For this reason the University of Lyon places at the disposal of its teachers software for the detection of plagiarism, which the students can also use to control themselves.

Source: February 2008

Le Monde February 6, 2008 and DirectMatin local newspaper February 7, 2008

6.5 Companies Sitting On University Boards - The companies have entered the councils of universities (France)

The law on the autonomy of academic institutions provides for the participation of at least one representative from the business world in the councils. Veolia, Michelin and L'Oreal have already taken the first step.

"It is not limited to a history of finance!" Denis Gasquet, CEO of Veolia Clean, who has had a seat on the board of directors at the University of Marne-la-Vallée since mid-January. Like Veolia, a dozen companies have integrated the boards of three universities in the past few weeks, namely Marne-la-Vallée, Paris-VI-Descartes and Clermont-Ferrand I. Among them, Michelin, Limagrain, Banques Populaires, Théa Laboratories, La Poste, L'Oreal and Sanofi Aventis.

Under the law on the autonomy of universities, 80 French universities have until today to determine the size of their board of directors which is limited to a thirty members. By August 11 Universities must determine the composition of these boards, which must include at least one representative from the business world.

It's logical that the head of Veolia Clean already involved in the creation of the ParisTech center has been in touch with the president of the university [regarding board membership]. Indeed, Veolia already has a partnership through a training centre with Essec and the University of Cergy-Pontoise. According to Denis Gasquet, the urgency is "that students be in contact with the company at the earliest possible date regarding career choices that are more in line with the world around them." In very concrete terms, companies now on the board could give an opinion not only on the adaptation of teaching, but also the vocational and other strategic developments. "We see a shortage of lawyers in the pharmaceutical area and have suggested to the university that it establish such a curriculum," explains his side Jacques Fournet, president of the Théa Laboratories, a group specializing in ophthalmic products.

Same story at Michelin, where the director of sites in Clermont-Ferrand estimates it "wishes to bring its vision of the industry to the university."

Universities and corporations are already working together. Francis Godard, President of the University of Marne-la-Vallée, explains that "we are not integrating [companies into the] board to know them, since we already know them! For example, Veolia co-finances a master of urban engineering program. The idea is to share with them a strategic vision of the university" and to go beyond the boardroom.

Overcoming reluctance

One of the difficulties is to overcome the reluctance still very evident in students and some teachers. At Unef, Jean-Baptiste Prevost is "doubtful" about the presence of businesses and wondered about a "lack of balance between the proportion of representatives from academia and representatives from the outside world in these new councils."

At Clermont, the president of the university, Philippe Dubecco, explained that "companies are already present: especially in the professional masters [program] where half of the teaching staff is made up of professionals." Similarly in Clermont, Michelin opens its research centers, including participation in a redefined master business intelligence degree.

But, say the players, even if money is not at the heart of the debate negotiations on the creation of foundations have started. Most of these companies do not hide their interest... "It's not presented as that, but it evokes..." one president admitted.

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Source: February 2008

Le Figaro February 10, 2008

6.6 Electronic Paper Presented at the Paris Book Show (France)

A black and white screen A4 BiNem designed by Nemoptic, a company specializing in electronic paper (e-paper) for portable general public and professional applications, is able to preserve an image without consuming any energy, apart from the updates carried out in less than one second, and offers exceptional reading comfort, comparable with the reading on paper. With a 200 dpi screen, and less than 2 millimeters, the luminosity exceeds 30%, which is the best resolution on the market of the passive e-paper screens (1650 X 2340 pixels). It was presented at the workshop "Readings of tomorrow" at the Book Show of Paris March 14-19. This workshop was based on four themes: E-book and electronic ink, mobile support, knowledge, and digitalization.

"This presentation of new electronic paper technologies at the Book Show indicates the new forms of reading and writing", explains Jacques Noels, the chairman of the nine-year old company. Nemoptic, based in Paris, has raised more than 35 million Euros. Today, it has a pilot manufacturing unit in Sweden and product line in the Seiko Instruments Inc., in Japan. The breakthrough technology BiNem (Bistable Nematic) which the company developed can be applied not only to electronic labels at the point of sale but also to many portable products like the electronic books and newspapers, ultra portable mobile PCs and telephones.

Sources: March 2008

Electronic Bulletin, March 20, 2008 and Nemoptic - <http://www.nemoptic.com>

6.7 INSERM Reorganization Moving Ahead (France)

The "soft revolution" is progressing. Valerie Pecresse, Minister for Research, announced before the directors of units of two Inserm two months ago, that the reorganization of the French Medical Research Institution is a fact. The board of directors of Inserm approved Thursday the reformulation proposed by its general manager, André Syrota, around eight thematic institutes, based on organs, systems, and associated pathologies. This will end the overlapping structures that have multiplied in recent years, such as, the INCA (National Institute of Cancer) or the RTRS (networks sets of themes of research in health).

Criticizing "the crumbling and complex structures", "a complex and illegible organization", "we must go towards a clearer and more effective organization", the minister noted in defense of the reorganization. According to the mission statement, the objective is "to make Inserm the national institutional coordinator of all biomedical research". For this reason it was decided at the time of the launching of the Alzheimer plan last February that this research will be undertaken the one of the eight institutes that is dedicated to the neurosciences, and not of a new ad hoc structure.

The initiative was met by a reaction from researchers, who organized a gathering in front of the institution on Thursday. Many agree with Bertrand Monthubert, president of the movement Save the Research (SLR), that this will be "adding an additional layer without removing others". Some fear that this additional emphasis on biomedical research will leave fundamental research behind.

Dreaded weakening: the unhappiness extends to CNRS because the organization is next in line for reform. Its board of directors met Thursday morning and favored reorganizing projects within institutes rather than in the current departments. This is in accordance with the draft reform sent last month by the minister to its president, Catherine Bréchnac. The reform package will appear with the strategic plan that the organization must complete before the autumn. That raises the question of the coordination of medical research between the two organizations, where CNRS has a role, through its department of Life Sciences. "The system of control imagined by André Syrota results in Inserm imposing its orientation on the other organizations, including CNRS... It is extremely probable that reductions will go beyond Inserm. How will all that be determined?" question the SNTRS-CGT trade union. Also of concern it is the weakening of the research organizations to the profit of the National Agency of Research (ANR), a new structure for funding projects, especially at universities, created in 2005. This reform was clearly stated by Nicolas Sarkozy in his speech made at the University of Orsay last January.

Sources: March 2008

Le Figaro, March 27, 2008

6.8 CNRS Reform – Update (France)

Several hundred researchers expressed their fear of loss of autonomy in front of the ministry for Research in Paris, in the same number in Toulouse, and 600 directors of laboratories joined together with the College of France... Three years after the movement "Save the research", was organized, the sector is again boiling. The question is what will be the impact of the proposed reforms for the public research sector and especially how this will affect the autonomy of the researchers. "Most important" is "the respect for the autonomy of the scientific field", hammered the directors of laboratory at the College of France. At his speech on January 28th, Nicolas Sarkozy announced a vast reform of French research. He promised "a massive budgetary increase" for research, in order to "unambiguously mark the paramount importance we will attach to its growth over the next five years". But this growth will only come if it is accompanied by specific reforms. Among those are a recasting of CNRS and other institutes, called to become "funding agencies" charged to manage the scientific policy that the government will have entrusted to them.

Minister Pécresse tried to reassure that the college teachers and researchers that, this approach brings research back under political control. They also fear that the National Agency for Research (ANR), created in 2005, will impose on them the research agenda. Addressing fear of government directed research, the Minister for Research, Valerie Pécresse, stated that a "good strategy" for national research incorporates of the views of the policymaker and the scientist. The first "share the great challenges of society" (Alzheimer, biodiversity, etc.) and the second "of the strengths and the weaknesses of our laboratories and their scientific ambitions".

Other researchers seek to limit the vulnerability. In particular they criticize the absence of any job creation in higher education teaching or research fields in the 2008 budget. The trade unions in particular claim "a multi-year statutory recruitment plan and higher budgets. The mobilization of researchers pushed Claude Allègre, presumed to be part of the government after the local elections, to demand safeguards for them.

Sources: March 2008

Le Figaro March 5, 2008

6.9 Pécresse details the CNRS reform (France)

The National Center of Scientific Research (CNRS) will be reorganized in institutes, whose directors will be named by the ministry, after an international call for candidate, specifies the minister of Higher Education and Research Valerie Pécresse in a interview by the newspaper Le Monde. "Our research suffers of a complex organization and is parceling out of its forces", observes the minister. "We identified six fields where CNRS exerts a leadership and has vocation to coordinate on the national plan: mathematics, physics, chemistry, engineering sciences, social sciences, ecology and biodiversity". According to the minister, this reform should not harm the interdisciplinary of CNRS, but simplify the French research system. The researchers protested in March and April against the reform of Inserm and CNRS in institutes sets of themes. They fear at the same time a bulk-heading of the sets of themes of research, a weakening of the basic research, and a narrower piloting of research by the public authorities.

Sources: May 2008

Le Figaro, May 20, 2008

6.10 CNRS: reorganization not necessary (French Socialist Party - PS) (France)

The PS estimated that it is not necessary to divide CNRS to re-organize it", after minister of Higher Education and Research, Valerie Pécresse, said to want to re-structure it in six institutes. The Socialist Party indicated in an official statement that it regarded the National Center of Scientific Research as "angular stone of a transversal and multidisciplinary French research". The PS estimated that the various already committed reforms need yet to proof of their effectiveness; dividing CNRS now is not necessary". The text is signed by the National Secretary to Research and Higher Education, Yves Durand, and by the person in charge of this sector, Alain Claeys, deputy and mayor of Poitiers.

Sources: May 2008

Le Figaro, May 20, 2008

6.11 First results of Sarkozy (France)

The demonstrations are legion in this month of May, the unhappiness persists on the capacity to purchase, and the economic actors fear the blaze of oil and the cost of euro. The social climate is hardly amusing, the litany of the claims or disappointed waiting is long. Then, as usual, much of French hold their government in charge responsible of all evils. Perhaps even more today since one hears here and there that Nicolas Sarkozy had promised so much. Funny country is ours where propensity with like a certain moroseness and abundantly maintained by a troop of observers. However, reality is not completely that. Of course, all is not perfect. But does not displease any of them, the first positive tests of the Sarkozy's policy are there. Growth, since the beginning of the year, is better than anticipated. The request of the companies in tax free overtime does not cease to increase. The number of creations of companies progresses.

Result of a reform that much predicted impossible, the minimum service in transport functioned yesterday in several places [on a strike day]. Even for the autonomy of the universities restive with this measurement, all want today to be involved. In spite of the oppositions, building sites open in the State Education advance at a good rate; as well as those of justice. The special diets of retirement belong to the past, the work world has evolved. Unemployment, true wound of the end of the XX century, is spectacularly regressing. In short, the assessment is far from that which the birds of ill omen draw up with envy since a few months. France is not resting as in 1968. Admittedly, France is often sulky; but it also changes, rather in the good sense. Undoubtedly the French, in their great majority, understand that it is

necessary to leave the opposition to progress, to get free from the old diagrams. Even if it costs some. They are not resigned, they are anxious; they are not revolted, they are watching.

The trade unions have assimilated it and some have changed of posture or speech. Using too much hammer and sickle, they were on the verge to fossilize. For the form, they still seek to mobilize in the street. But, in the content, they know that the dialogue is from now on their surest weapon. The proof: yesterday's protest against the lengthening of the duration of contribution for the retirements considered to be inescapable will not remain in annals of the dispute. They were differently more turbulent in 2003 against the Fillon law. The personality of Nicolas Sarkozy can aggravate, his policy should not be judged as ell, like it is too often. The confusion of the impressions and the feelings scrambled the only thing which counts: effects of the action. They start to be real. One does not miss that it always embarrasses the Socialist Party, who is short of new and judicious alternative arguments.

Sources: May 2008

Le Figaro, Leading article by Yves Thréard, May 23, 2008

6.12 The Minister for Higher Education and Research Disavows Promises to Union (France)

Last June, under the strong pressure from the scientific community, the Minister for Higher Education and Research (Mrs. Précresse) retreated from the CNRS strategic plan "Horizon 2020," subject to the vote of the board of directors. Indeed, the ministry promised that:

- all the disciplines currently represented at CNRS would remain and be incorporated into the institutes;
- CNRS Institutes would be created only after taking account of the opinions of their advisory and deliberative authorities;
- CNRS would work with the organizations in same the disciplinary fields to build, together, the best possible coordination mechanism.

But these safeguards are contrary to the will of the government. Disavowing her promises to the unions, the Minister decided that she would define the scope and mission of each scientific institute. On September 22, she launched a commission and two work groups intended to implement the CNRS strategic plan. Contrary to the will of the scientific organizations, the CNRS internal organization is entrusted to a governmental committee.

Finally, the government reveals its true objective: the dismemberment of CNRS, by force, with the only aim of controlling research. An organization which plays a crucial role in structuring the French national research policy is thus threatened of disappearance.

In the face of such a takeover by force, the SNCS (union organization) calls on the scientific community to react with greatest energy.

Sources: September 2008

Press release of the SNCS FSU (Unions) on September 24, 2008

6.13 Higher Education and Research Budget: the 2009 priorities (France)

The budget of the Higher Education and Research constitutes the first budgetary priority of the French Government, in particular with an extra effort of 1.8 billion € in 2009, 2010 and 2011. It translates the commitment of the President of the Republic's campaign to make knowledge a pillar of a durable growth and social development. The increase in the budget and fiscal means will be of 6.5% in 2009 and almost 17% over the period 2009-2011.

Sources: October 2008

<http://www.enseignementsup-recherche.gouv.fr/> - September 26, 2008

6.14 Creation of a new "doctorate contract" (France)

At the occasion of the conference of the European Council of the Research (ERC), during which an assessment of the first year of activity of the Council was drawn up, Valerie Pécresse, Minister of Higher Education and Research, pointed out her willingness to reinforce the recognition of the doctorate degree, and making the diploma headlight of the French system of education. She announced the creation of a new “*contract doctoral*”, a unique contract for the universities and the research organizations, simpler, offering all the social guarantees of a work contract and being adapted on a case-by-case basis. This contract will be signed for duration from 3 years.

Sources: October 2008

<http://www.enseignementsup-recherche.gouv.fr/> – October 7, 2008

6.15 Mobilization of the Higher Education and Enterprises to respond to the need of recruitment in the nuclear domain (France)

France must face needs for recruitment in the nuclear power domain. Thus, within the framework of the nuclear revival wanted by the President of the Republic, Valerie Pécresse, Minister of Higher Education and Research, created the coordination committee of the formations of science and nuclear technologies, charged with to ensure the adequacy between offer of training, number of students in that domain and request from industrial sector regarding qualified personnel.

Sources: October 2008

<http://www.enseignementsup-recherche.gouv.fr/> – October 6, 2008

6.16 2008 Nobel Prize of Physiology and Medicine (France)

Valerie Pécresse, Minister of Higher Education and Research, presented her congratulations to Françoise Barré-Sinoussi, Research Director at INSERM and to Luc Montagnier, highly skilled Research Director at CNRS, who have been designated as prizes winner of the 2008 Nobel Prize of Physiology and Medicine, for their work and discovery on the human immunodeficiency virus (HIV).

Sources: October 2008

<http://www.enseignementsup-recherche.gouv.fr/> – October 8, 2008

6.17 Creation of a Center of Excellence in Research and Development in Informatics (France)

Valerie Pécresse, Minister of Higher Education and Research, welcome the decision of Microsoft to create a new center of excellence for research and development in data processing specialized in research in Internet, which will be based in Issy les Moulineaux (Ile de France near Paris). The minister is pleased with this choice of location driven by the quality of the formation of the French universities, the excellence of the researchers and engineers, but also by the region thanks to the new mode of the tax credit.

Sources: October 2008

<http://www.enseignementsup-recherche.gouv.fr/> – October 2, 2008

6.18 French university students will rate their teachers

The Minister of Higher Education and Research (Valerie Pécresse) wants to encourage universities to grant promotions on the basis of both teaching and research.

Valerie Pécresse intends to start a new era in French universities – an era of evaluation. Although many foreign universities use evaluation of faculty by students, this approach is sparsely used in French universities despite its being obligatory since the Bayrou reform of 1997.

Nonetheless, some institutions do use the practice. Bordeaux-II University requires its students to give their evaluations of courses, just like Paris-V, Paris-VI or the University of Burgundy. Everywhere it is used the effects are positive because it allows the teachers can modify or improve their courses. The only downside effect is the frustration resulting from a bad remark that is sometimes given more weight than a reasoned criticism.

At the Institute of Political Studies of Paris, a pioneer on the matter, this practice goes back more than twenty-five years. Each year around fifty teachers out of the 2,000 receive a negative evaluation. The free-lances who are so evaluated are not hired back the following year, but tenured professors are requested to do a self-appraisal and respond to the critics. But they keep their jobs.

The evaluation of the teacher-researchers has had no impact on careers. At the university, career progression results almost exclusively from research as measured by publications. Those who sacrifice the quality of their teaching for the benefit of their research progress more rapidly than those who focus on teaching. With this reform, Minister Pécresse, hopes that “teaching” is not ignored. The aim is to encourage universities to grant promotions according to the dual role of teacher and researcher.

Sources: October 2008

Le Figaro, October 22, 2008

6.19 Erasmus attracts fewer French students: Economic difficulties and lack of equivalence of diplomas slows university exchanges (France)

Is the film “The Spanish Auberger” no longer the stuff of young French dreams? Or is the economic crisis encouraging today’s students to stay at home? One thing is certain, although the Erasmus program popularized in Cédric Klapisch’s movie celebrated its 20th birthday last year, the passion of Europeans, and in particular of the young French, to study in a foreign country seem to have weakened. This week a conference on mobility in Europe held in Nancy insisted on the need to jumpstart university exchanges.

Of the more than 31 million European students, only 550,000 each year study in foreign country, either via the famous Erasmus program (160,000 students in 2007) or within the framework of bi-national programs. The progression of the Erasmus program, however, shows a downward trend, with a growth of only 3.2% in 2006-2007, compared to 7.2% the previous year. Only with the entrance of last twelve countries into the European Union is it possible to view these statistics favorably. According to Jan Figel, European Commissioner for Education and Formation, students these recent-entering countries saw their Erasmus mobility growing by 10%. On the contrary, France is slowing down. Although well ranked among European mobility with 77,000 students, France is second behind Germany and ahead of Japan. French students’ mobility is less than 4.8% over the period 2003-2006 according to a study of the French Campus Agency. The bad news is that while more than 27,000 Erasmus grants offered in France, for the first time ever there were 4,000 that were not awarded.

Professional repercussions

Several factors can explain this erosion, and the first relates to economic conditions. The fragile living conditions of the students, which has resulted in a rise of working students, makes travel more difficult. The Erasmus grant, which averages 150 euros per month, is not a sufficient incentive. Valerie Pécresse improved the French system of mobility grants, which will supplement the European award.

Other explanations include the low level of foreign languages spoken by French students and the fact that diplomas are frequently not recognized among European universities. In France, only 679 of the 3,500 higher education institutions were engaged in the program Erasmus in 2007, according to the Center for Strategic Analyses. However, the report states that “due to the autonomy of these institutions, the public authorities can only strongly encourage, but not require, them to participate.” Yves Chassard, chief of the Labor, Employment, and Formation Department at the Center for Strategic Analyses, what is required is a rigorous study of the professional repercussions of the Erasmus program, as well as “a better recognition of the professional qualifications acquired in another European Member State”.

Sources: November 2008

6.20 Interview with Valerie Pécresse - For the Minister of Higher Education and Research, financial aids are essential to encourage the students to study in Europe (France)

LE FIGARO. - How do you explain the fall of French students’ mobility?

Valerie PÉCRESSE. - I see three main reasons. The first one is psychological. Often, students do not see the benefits of studying in a foreign country. The universities must make greater efforts in this direction by integrating more training courses or six-month periods and by improving recognition of diplomas awarded by other institutions.

The second barrier is the one of the language. Our students speak too few foreign languages, and in particular English. When I arrived at the Ministry, I noted that English was absent from first year curricula in 75 percent of universities! Within the Success in License program I increased the English language requirement to 5 hours per week per student.

The financial barrier is last, but not least. An Erasmus grant represents on average 150 euros per month. This is insufficient to motivate a young person to move. Based on this, I decided to act.

What are the main measures?

First of all, as of this year we will double the number of recipients of the French grants, known as mobility grants, which will grow from 15,000 to 30,000. We are concerned not only about the number of exchange students in financial need, but also those whose parents don't earn enough to be taxed, which in particular affects large families. Moreover, this grant will grow from 389 to 400 Euros for between 2 and 9 monthly payments, depending on the duration of the stay. This will be on top of the need-based grant. Lastly, the grant can be awarded for appropriate training courses that are not reimbursed by the foreign institution.

How to improve mobility at the European level?

In November I will ask the European Education Council to allow European countries to send their students to foreign countries and to make mobility a full and complete part of the program. It is an ambitious objective since, currently, the rate of mobility is only 3%. In addition, I am working on reciprocal recognition agreements for diplomas and to establish diploma equivalence within universities. Currently we have only ten reciprocal agreements to recognize diplomas. It is necessary to continue, especially that the Grandes Ecoles are ahead of the universities in this domain.

Source: Le Figaro, November 9, 2008

6.21 Campus Renovations in Six Cities (France)

The details start to filter on the first winners of the Campus plan.

In 2010, renovated campuses will see daylight in the first six cities (Bordeaux, Toulouse, Lyon, Montpellier, Strasbourg and Grenoble) selected for the Campus "university of excellence" plan initiated by President Nicolas Sarkozy. The 3.7 billion resulting from the sale of part of the EDF (Electricite de France) capital in December 2007 will be used to fund these projects.

Valerie Pécresse, the Minister of Higher Education, has been shown the models presented officially by the persons in charge of the various projects. In Strasbourg or Montpellier, the plan is to clear out the unsightly parking lots, which separate the various university buildings. The Alsatian capital proposes the creation of a "House of Arts and Science." In Grenoble, a tram will connect the new buildings.

Toulouse concentrates on an "aerospace campus" gathering together the aerospace teaching and research into one space. For the people in charge, the idea is to reorganize the campuses in order to make them attractive on an international plan. But they evoke especially real restorations. "More than 30% of the real estate is dilapidated", according to the Minister," so it is logical that this is the focus of the plan."

Is the economic crisis likely to erode the billions resulting from the sale of the EDF actions? Although the government currently has 3.7 billion Euros, Valerie Pécresse points out that the 5 billion planned initially for the campus operation remain "an engagement of Nicolas Sarkozy". "The money will be there when it is necessary to start to pay the rents of the private public partnerships that is to say by 2010".

"Landmark investments"

The Minister recognizes however, that “this is not the time to sell credits. We all agree on that. The state of the Stock Exchange does not allow it.”

“The crisis does not worry me too much”, insists the person in charge of the Strasbourg project, “the investments are landmark placements. And within two or three years, the Stock Exchange will have gone up.” This is an optimism not shared by the president of the students’ union (Unef) Jean-Baptiste Prévost, “One cannot guarantee that this sum will not disappear, that it will still be available in two years.”

Financing from the State--whose distribution, university by university, will be revealed Monday -- will cover only part of the projects presented yesterday. The remainder will be covered by the local governments. The Rhone-Alps region is contributing 255 million Euros. The Alsatian local government agencies promise 240 million Euros. The Languedoc-Roussillon Region will provide a third in the project of Montpellier. The president of the Aquitaine region will provide a one-to-one match from the state. For the person in charge of the project on the Bordeaux campus, the fact that they have been retained among the six first offers them a publicity that reflects positively on the Region and he congratulates this project. Consequently the Region promises additional funds.

Sources: November 2008

Le Figaro, November 16, 2008

7 Germany

7.1 Nanotechnology – Impulse from the Nanosciences – DFG is financing 11 million Euros (Germany)

The German Research Foundation (DFG) has established a research program on the specific set of themes (SFB) "Semiconductor-Nanophotonics: Materials and Component Models" at the Technical University of Berlin (TUB). This program, funded at 11 million Euros, began on January 1 and will run for a period of 4 years. It aims to stimulate research on new and developing nanostructures and components based on photons.

Technologies based on the use of photons are currently experiencing very rapid growth. Up until now, semiconductor technology has been dominated by the flow of electrons. Soon the focus will be on photons for data transmission, materials processing, chip manufacturing, or environmental technologies. For this reason, knowledge of nanostructures in semiconductors is essential for the development of new photonic components and systems.

Eventual applications of the research funded by the DFG will extend to lasers used for the next generation televisions, terabit data storage and transmission, and the development of foolproof security in data transmission (quantum cryptography). In addition to basic research and applied research the program will address the issue of technology transfer.

Source: February 2008

Electronic Bulletin January 30, 2008

7.2 Franco-German Seminar: Preparation of CEA-FZJ Collaboration

More than thirty scientists of the Forschungszentrum Jülich Startseite and of the Centre de l’Energie Atomique met January 23rd and 24th, 2008 to discuss issues affecting them. The outcome of these discussions constituted the basis for a bilateral agreement. This first seminar was focused on supercomputers in the context of simulations of scientific phenomena, a field in which the two parties [Germany and France] occupy a strong position in Europe.

Prof Achim Bachem, President of the Research Center of Jülich (FZJ), and the French High Commissioner Bernard Bigot of the CEA stressed the importance of collaboration between their respective centers. Following the presentation of the activities of each center, new proposals were made

for the development of joint technologies focused on supercomputing, quantum technology, soft matter, biophysics, land systems, atmospheric physics, nuclear safety, the physics of the high-energy particles, nuclear structure as well as nuclear fusion and the plasma physics.

The two centers, already members of national consortia, were enthusiastic about the idea of becoming the two European sites of supercomputing. They will coordinate all preparations for the installation of systems which they want. Both centers want to optimize parallel computing in supercomputers, as well as the speed of data processing, in order to reduce energy consumption.

Collaboration in the field of magnetic structures and switchable nanosystems will meet the requirements in materials sciences and quantum physics. Soft matter and biophysics research aims to understand the fundamental mechanism of cells. Research on nuclear safety will make it possible to simulate the current and futures reactors in detail. Studies in physics of high-energy particles will allow a better forecast of the structure of the nuclei of atoms. In the same way, the interactions between plasma and the design of a fusion facility will be examined by using models to simulate turbulent currents. A first exchange will be followed by the transfer of a gyrokinetic code developed at the CEA to the supercomputer at Jülich. The results will contribute to the construction of the experimental reactor with nuclear fusion international (ITER scheduled to begin in Cadarache in 2008).

This seminar is a first step in a collaboration between the CEA and the FZJ. The results of the seminar will be presented in Paris on February 29, 2008 at the third Franco-German research forum in the presence of the Ministers for Education and Research of the two countries. A second seminar is expected to take place next year. Jülich is one of the first centers to put into practice the "Memorandum of Understanding" (MOU) signed on December 3, 2007 by the Helmholtz Society and the CEA.

Source: February 2008

Electronic Bulletin February 6, 2008

7.3 Preparing a Network of European Supercomputers (Germany)

On January 29th, 2008, representatives of 14 European countries, including France and Germany, met in the Research Center of Jülich (FZJ) in order to prepare for the installation of the project PRACE, European Partnership of Supercomputers. In late 2007, the European Commission decided to allot 20 million Euros over the two next years to create an infrastructure of supercomputers to facilitate scientific work. In the future, the researchers will have access to computing which cannot be achieved on national scale. Access is facilitated for researchers and engineers from universities, research centers, and industry; and peer review guarantees the selection of the best scientific projects.

Within the framework of these preparations, the meeting of Jülich is critical: it will not only develop a single organizational structure and a suitable legal basis, but also provide a model for the future. Likewise, it will also attract potential industrial customers. Technical improvements, adaptation of software and evaluation of prototypes for future computers are also essential activities for the success of this project. The installation of a petaflop system -- a computer able to carry out a million billion operations per second -- is planned for the end of 2009. PRACE must also prepare for the long-term planning for various possibilities of later generations of supercomputers.

The availability of supercomputers becomes an essential factor for progress in science and industry, whether for genetics, simulations of climatic change, or in the service of engineering. In the PRACE consortium, the German representative is the German Center of Gauss Supercomputer, already working with the high performance computer centers of Jülich, Stuttgart and Garching (Munich).

Source: February 2008

Electronic Bulletin February 6, 2008

7.4 The Federal Ministry of Education and Research Campaigns Against "Pirate" Products (Germany)

Against the repeated attacks of counterfeit products on the market, which increasingly threatens the competitiveness of the German innovations, the Federal Ministry of Education and Research (BMBF) answers with its own weapons: support for research. "It is necessary that we protected our products and services, not only on the legal, but also technological level," underlined Prof Frieder Meyer Kramer, Secretary of State at the BMBF.

Within the framework of the conference "Innovations Against Pirate Products", the Ministry announced Tuesday, January 22nd, 2008, the financing of 9 partnership projects aimed at developing, on the technical and organizational level, protection (and in particular of medium-sized companies) against counterfeit products. The BMBF foresees an allocation of 15 million Euros over 3 years for projects to protect the goods of industries and the service companies. Additional financing of 15 million Euros will be also brought by the industrial partners of the projects.

At the federal scale, the damage caused by the marketing of the pirate products on the German economy is estimated at 5 billion Euros. Counterfeits seriously weaken industries focusing on innovation and exports, and results in the annual loss of 70,000 jobs, according to a survey of the Union of the Manufacturers of Machine Tools (VDMA). After the theft of intellectual property, the industrial sector is one of the most severely affected, with two thirds of the companies reporting piracy.

In order to structure its "research offensive", the BMBF solicited projects in three areas:

- protecting the design, development, manufacture and distribution of products and processes,
- marking products and developing follow-up monitoring systems,
- developing general concepts of protection.

Within the second set of themes, the EZ-Pharm Project will especially target the pharmaceutical sector, a sector in which the effects of piracy have serious consequences. In addition to the significant economic losses generated by copies of drugs, there is a proven risk to the patients' health. In the many areas of the world, the market for plagiarism of ownership of medical products is strongly established. According to WHO (the World Health Organization), about half of the drugs circulating in certain parts of Africa are counterfeits.

In order to fight against this parallel market, the EZ-Pharm project envisions safety throughout the manufacturing chain through its delivery to the patient. An electronic certificate of authenticity using RFID (Radio-Frequency Identification) technology will make it possible to check constantly the authenticity of the drug. This "intelligent label" is integrated into the individual packaging of the medical product on a chip with a printed antenna using conducting inks.

Source: February 2008

Electronic Bulletin February 6, 2008

7.5 A Course in Mechanical Engineering Starting Winter 2009 (Germany)

"Mechanical and Production Engineering" is the name the new Bachelor of Higher Education course at the University of Bremen, in cooperation with EADS, Astrium, and Airbus. It acts as a course spanning 8 semesters which aims to teach sound science and practical technology and the management of aeronautical production (within the framework of the "Bachelor of Engineering") as well as practical technical knowledge (in conjunction with the Chamber of Commerce and Industry). The admission will be based on academic performance, following a Certificate of Professional Studies, a baccalaureate degree or training carried out in partnership with EADS, Astrium, or Airbus.

Three first semesters will be devoted to the acquisition of basic mathematics, physics, mechanics, economics, English, thermodynamics, materials, data processing, electrical engineering, construction and CAD (Computer-aided design). Following practical training during 4th and 5th semesters, the students will have to continue with coursework in production technology, mechanical engineering, aeronautical, materials technology (composite, synthetic matter reinforced by CFRP carbon fibers). Finally, they will present a Bachelor-Thesis, validating their work.

The University of Bremen, as well as EADS, Astrium, and Airbus already have several joint courses, particularly in the context of technical and commercial training. This is the fifth course of joint study. Students sign a contract with the company before the beginning of their studies and progress in alternation within the company and the school. In the company, the students will pass through various services in order to acquire a maximum of knowledge.

Source: February 2008

Electronic Bulletin February 6, 2008

7.6 Lower-Saxony, first German State to Evaluate University Research

The scientific Commission of the Land of Lower-Saxony (WKN) has carried out the first complete evaluation of the state of research undertaken within its universities. Directed by Prof Dr. Jürgen Mlynek, President of the Community of Research Centers Helmholtz and former President of the Humboldt University of Berlin, the commission gathered eleven members who are eminent researchers from across Germany whose specialties cover the all disciplines (social sciences, natural science and engineering). For each discipline, specific commissions made up of German and international experts were created. Contrary to the evaluations carried out within the framework for the classification of the universities which relied only on quantitative evidence, the experts of the WKN not only read all of the scientific publications, but also went personally to each university institute to talk with all the professors and technical staff.

The objective of this evaluation was to carry out a qualitative inventory of university research. The experts made structural and technical recommendations for the scientific policy. The process of evaluation adopted the model of the scientific Council (Wissenschaftsrat) which acts at the federal level like a political institution of council on the questions of science and research. The results of the evaluation are available on line on the site of the scientific Commission of the Land to the address:

<http://www.wk.niedersachsen.de>

Sources: March 2008

Electronic Bulletin, February 20, 2008

7.7 A Window on German Research Abroad

The German government has decided to build German research centers throughout the world. February 20, 2008, it votes for a strategy of internationalization of German science and research as a part of this program. These centers will aim to represent German science and research abroad. These research centers, represented by Max-Planck (MPG), the funding Agency for German university research (DFG) or the German Office of the university exchanges (DAAD), form part of the new scientific policy of the government. According to the Federal Minister for Teaching and Research, Annette Schavan, the project of establishing research centers in Moscow and Delhi is already quite advanced. The objective of this strategy of internationalization is to attract many researchers from through-out the world to Germany and end the slowdown of foreign R&D investments in Germany.

Sources: March 2008

Electronic Bulletin, February 20, 2008

7.8 The Academy of Science Leopoldina will be the German National Academy

The Federal Minister for Teaching and Research and its counterparts of Länder (state governments) decided Monday February 18, 2008 that the role of National Academy in Germany will be held by the Academy of Natural Science Leopoldina located at Halle. This decision puts to an end nearly 20 years of discussion on the installation of a National Academy, which will make it possible to found a "continuous dialogue between science and policy", according to the Federal Minister for Teaching and Research, Mrs. Annette Schavan. The role of the National Academy is two-fold. On the one hand, it must represent German research at the large academies of the world. The Academy of Natural Science Leopoldina has already served this function on several occasions, in particular in the preparation for the G8 summit on climatic change in Heiligendamm last June. In addition, the National Academy helps with decision-making policy and science.

The Academy of Natural Science Leopoldina is the oldest scientific Academy in Europe and in recent years has played a part in representing German science abroad and intervening on several important political subjects. Until 2010, it will receive 4 million Euros per annum (80% of Bund and 20% of the Land of Saxony-Anhalt). Beyond this date, a more important participation of the other states is envisaged. The National Academy will be chaired by an honorary management Committee. The various aspects of the management of the Academy will be in agreement with the charter of the Management Committee as well as its method of voting. The members of the management Committee are elected by the Senate and its current President is Professor Dr. Volker ter Meulen, a virologist from Wurzburg.

Sources: March 2008

<http://www.bmbf.de> and Electronic Bulletin, February 20, 2008

7.9 Named as a German Research University of Excellence, the Technical University of Munich puts Women at the Heart of its Innovation Policy

On February 20, 2008, the technical University of Munich (TUM) was designated as an elite German university for research for its leadership role in the fields of biology, chemistry, electronics, and technology of the communication, mathematics, physics and business. As a result of a study by the Center for the Development of Universities (CHE), the most broad-based study in Germany, which takes into account quantitative (financing, publications, patents, a number of doctorates...) and qualitative criteria (reputation within industry and university world). This study identified the elements which enabled TUM to obtain the label "elite university" on from the federal government in 2006. The integration of the women within the research teams represents one of the principal priorities announced by the university. The objective of TUM is to become by 2011 the magnet German university for the women.

Sources: March 2008

Electronic Bulletin, March 8, 2008 and Christine Kenning - Technische Universität München - Phone: +49 89 289 25298 - email: kenning@zv.tum.de

7.10 Commission of Experts Evaluates Research and Innovation (Germany)

The Commission of experts for research and innovation (EFI), created by the coalition government in 2006 at the request of the Bundestag, presented on February 27, 2008 to Angela Merkel and the Federal Minister for Teaching and Research Annette Schavan, its first report on research, innovation and technological capacity of Germany. According to words of Mrs. Schavan, the results and recommendations put forth by the Commission are consistent with the current government research and innovation policies. This expertise represents the first evaluation of research and innovation policy by independent experts. It is comparable to the annual exercise carried out by the German Council of the Economic Expertise, responsible for the analysis of the total economic development of Germany. In the same spirit, this report on research and innovation policy will be carried out at regular intervals. The Federal Ministry of Teaching and Research (BMBF) announced that she will take the recommendations from the Commission and respond in her biannual report on research and innovation in Germany in March.

Sources: March 2008

Electronic Bulletin, March 8, 2008 and:

<http://www.e-fi.de/index.php?id=1&L=1>

<http://www.bmbf.de/press/2246.php>

<http://www.sachverstaendigenrat-wirtschaft.de/en/index.php>

7.11 Research and Innovation Pact Extended Beyond 2010 (Germany)

Launched in 2005 by the German government for a 5 years period (2006-2010), with the objective to fulfill the requirements of the European Council of Lisbon, the Pact for Research and Innovation will be renewed beyond 2010. The decision which was made Tuesday February 19, 2008 at the first meeting of the common scientific Committee (successor of the Bund-Länder Commission). Within the framework of this Pact for research and innovation, the German Ministers for Bund and Länder in charge of research, science and technology, were committed to increase by 2010 of 3% the budget of the great German organizations of research (Agency of Means for Research - DFG, Community of the research centers

Helmholtz - HGF, the society Max-Planck research - MPG, the society Fraunhofer - FhG, the community Leibniz - WGL). In counterpart, the latter began to improve quality and effectiveness of their activities of research and promised "to reach a level of excellence". According to the first assessment, drawn up in December 2007 (one year after the agreement); the objective of increase in the budget of 3% was already achieved.

The role of the common scientific Committee, which was born on January 1, 2008 to succeed the Bund-Länder Commission, consists in reconciling the scientific policies and research of Bund and Länder. Its members are the federal and regional ministers in charge of research and finances.

Sources: March 2008

Electronic Bulletin, March 8, 2008 and

<http://www.pakt-fuer-forschung.de>

<http://www.gwk-bonn.de/index.php?id=22>

7.12 The German Excellence Initiative Promotes Major Changes in the University Landscape

Four years after its launching, the "Excellence Initiative" in German Higher Education appears to be making in-depth changes in the university landscape beyond the Rhine. Michael Schuster, Director of Social Science Programs at the DFG was quoted by the newspaper Handelsblatt as saying "There had not been as much movement in the last 25 years." The Federal and State (Länder) governments decided to devote 1.9 billion Euros through 2011 to nine "elite universities", 37 Centers of excellence and 39 doctoral schools, competitively selected. The move is intended to boost research and higher education, to improve courses and recruitment for the so-called "elite" institutions. But they are not the only ones to benefit from the excellence initiative. The principle of competition among institutions for resources has been a spur for reconsidering their future and refining their strategies.

The Excellence Initiative would mark "the end of the equality fallacy", explains the "Handelsblatt". It marks a fundamental evolution in the consciousness of German higher education, which in the past has viewed promotion of the elite as a concept counter to egalitarian notions. The differences between institutions always existed, but now they can be discussed openly. Students now consult the rankings by the major news magazines ("DER Spiegel", "Die Zeit" or "X-ray") to select their schools.

Sources: April 2008

<http://redirectix.bulletins-electroniques.com/bQkVT>

<http://redirectix.bulletins-electroniques.com/1Dvl8>, *Electronic Bulletin, April 17, 2008*

7.13 Germany is gravitational for the foreign students

According to the results of a social investigation carried out by the German Federal Office of University Works and supported by the Federal Ministry of Education and Research (BMBF), bearing on the internationalization of the studies, Germany has been established on the international market of the studies like a gravitational country on the level of the courses as well as the one of research. The number of foreign students in Germany practically doubled since 1997, passing from 100,000 to 190,000, which positions the country at the head behind the United States and Great Britain. The study shows moreover that the stays of German students abroad within the framework of their studies are also very frequent: in 2005, more than 75,000 German studied away from Germany, against 52,000 in 2000. The parliamentary Secretary of State with the BMBF, Andreas Strom, was delighted by this number and announced the will of Germany "to reinforce this dynamics in order to achieve the following goal: within five years, the number of German students abroad must exceed the 100,000".

The results of this study reveal that the mobility of the German students abroad depends of their social origins. Thus, in order to give to a greatest number of young German the possibility of studying abroad, the BMBF modified the new system of grant BAföG to make it accessible to the German students to study in Europe. In addition, only 62% of the German students apply to grants to finance their studies abroad. In 2006, 15,300 German students received a grant of from German Federal Office for university exchanges (DAAD) for studies abroad. The results of this social survey carried out by the German Office of the students are published in a report available to the following address:

http://www.bmbf.de/pub/internationalisierung_des_studiums_2008.pdf

Sources: April 2008

Electronic Bulletin, April 17, 2008

7.14 Sixteen new foreground programs with the DFG (Germany)

The German Research Agency (DFG), the premier source of funding for German university research, will launch 16 new programs in 2009 known as "priority" (SPP - Schwerpunktprogramme).

These new programs will focus on important questions of fundamental research and give a strong boost to the development and applications of that research. The research areas range from the perception and treatment of odors to the production of custom fabricated solids, using representational theory from mobile communication networks.

These 16 new programs were selected from among 48 proposals. Initially, they will be funded at an annual amount of 28.8 million Euros for two to three years period. The success of the "priority programs" comes from the close interconnection between research carried out at the national and international level. The SPP aims at improving the quality of research themes, methods, and cooperation.

Sources: May 2008

DFG - <http://redirectix.bulletins-electroniques.com/ugZwP> and Electronic Bulletin, May 7, 2008

7.15 Partner in a New European Technology Research Program (Germany)

Germany is participating in a European program aimed at providing innovative financing to encourage cooperation between the industry and research laboratories. It acts as a public-private partnership with financing from the European commission, some European countries, and industry. The first calls for proposals for the implementation of concrete plans were published on May 8, 2008 in two technological fields: nanoelectronics and embedded computing systems. The German Federal Minister for Education and Research invested 21 million Euros.

The implementation of these two projects will be the responsibility of the European Nanoelectronics Initiative Advisory Council (ENIAC) and the Advanced Research and Technology for Embedded Intelligence and Systems (ARTEMIS), respectively, which will allocate 3 billion Euros (ENIAC) and 2.5 billion Euros (ARTEMIS) over ten years. Half of these funds come from the industry, the remainder of the public funds, allocated to two thirds within the framework of federal programs and for a third by the European commission. This new initiative, based on public-private partnerships, aims at providing strategic direction to important sectors of the European economy. It could also address fields such as health, mobility, safety, energy or environment.

Sources: May 2008

Federal German Ministry for higher Education and Research: <http://www.bmbf.de/press/2295.php>

ENIAC: <http://www.eniac.eu>

ARTEMIS: <http://www.artemis.eu>

Electronic Bulletin, May 15, 2008

7.16 Publication of the report: "Outlines of the public research in Germany"

In 2006, Germany devoted approximately 58.85 billion Euros to research and development, of which more of two thirds came from industry financing. Thus, for the year 2006, the expenditure of research reaches 2.53% of the GDP.

Germany counts approximately 750 public research units, 383 public or semi-public higher education institutions and 4 great extra-academics research organizations laying out autonomy of management and being given joint financing coming from Federal State and Länder: the Max-Planck company, the Fraunhofer company, the community of the Helmholtz Research Centers and the Leibniz company.

Scientific Service of the French Embassy in Berlin has just published a file on the outlines of the public research in Germany. This report reviews the principal points of the German public research: its governorship, its organization, its ways of financing and actors concerned.

Sources: May 2008

Electronic Bulletin, May 15, 2008

Free download of the report as PDF format:

http://www.bulletins-electroniques.com/rapports/smm08_026.htm

7.17 Recommendations for the conference of the United Nations on biodiversity (Germany)

From May 12 to 16, 2008 the conference "Biodiversity - Safeguarding the future" was held in Bonn, gathering 258 scientists coming from 36 different states and preparing recommendations and a common opinion for the conference from the United Nations "COP 9" on the biodiversity, which began on May 19, 2008. The meeting of scientists was initiated by the International Union of Biological Sciences (IUBS) and the International Research Program on Biodiversity DIVERSITAS. In spite of the resolutions taken up today in order to slow down disappearance of species before 2010, the scientists indicate that the decline of the biodiversity is accelerating at global scales. This underlines the imminent need for deepened political negotiations, in particular within the framework of the COP 9, because the biodiversity provides to mankind the goods and the essential services and represents a "system of safeguarding of the long-term life". So observations systems exist for the weather, the climate and the earthquakes, a similar system applied to the biodiversity, is today becoming necessary in order to allow forecasts and plan actions. The value of the goods and services brought by the biosphere should be included in the assessments within national scales and integrated in the political programs. These goals can only be reached thanks to new scientific efforts and the best taken into account of research on behalf of the political world.

The governments should intensify their support for the objectives previously adopted for 2010, in order to be able to use better indicators. The investments must be reinforced so to improve the tools and technologies allowing describing, identify, observe and carry out an inventory of the biodiversity. It would also help to return information on the biodiversity available in the whole world, in particular those concerning the countries rich in biodiversity. The scientists wish to draw attention on the part the biodiversity can play in the reduction of harmful effects of the climate change and the development of a better management of the biodiversity reinforcing this role. In general manner, the effectiveness of the dialogue between the political officials and the scientists should be improved. Lastly, the scientific community worries about the obstacles to the basic research, in particular when collecting samples. According to them, the fear of the bio-pirating [1] on behalf of country with a strong biodiversity must certainly be taken into account but does not have to lead to a blockade against research.

Sources: May 2008

[1] <http://fr.wikipedia.org/wiki/Biopiraterie>

- J. W. Wägele - Museum Koenig, Adenauerallee 160, D53113 Bonn - phone: +49 228 9122 200, fax: +49 228 9122 212 - email : w.waegel.zfmk@uni-bonn.de - <http://www.museumkoenig.de/>

Electronic Bulletin, May 28, 2008

7.18 Creation of a German center of the innovation for the young people in Rheinbach

On June 9, 2008 was founded in Rheinbach the fourth center "Zukunft durch Innovation" (ZdI – the future thanks to the innovation) of the Land of the Rhineland of North-Westphalia (RNW). These ZdI centers must allow children and teenagers to undertake research and practical works in various projects with an aim of encouraging them to continue studies in scientific disciplines.

The pupils will be able to study physical phenomena in workshops hosted within the schools. Courses of physics and chemistry at Higher Education School of Bonn-Rhein-Sieg (Fachhochschule) will also be proposed to the pupils of the second cycle. The objective of this center is to widen the possibilities it offers to other schools of the area.

The Zdl initiative should see the creation of 25 similar centers to that of Rheinbach proposing scientific and technical courses for an area or a city of the Land of RNW. The towns of Bochum, Solingen and Oelde have such centers already.

Sources: June 2008

Electronic Bulletin, June 11, 2008

7.19 New foundation of promotion of sciences for the Land of Berlin (Germany)

A foundation for "elite" for the promotion of sciences will see the day before the end of 2008 in the Land of Berlin. This decision was adopted on June 9, 2008 by the four universities of the Land, the Senate of Berlin and the representatives of the research organizations Berliner extra-academics. This foundation replaces the project of "Supra-university" proposed in 2007 by Professor Zöllner, Senator de Berlin in charge of teaching science and research.

Under the English name "International Berlin Forum for Excellence", this foundation will profit from 160 million Euros allocated by the Senate of the Land over the period 2008-2011.

Integral part of the Masterplan carried out by the Senator Zöllner in 2007, the proposal for a creation of a "Supra-university" joining together the four existing universities in Berlin had faced since its advertisement many reserves from the presidents of each university. Zöllner affirmed, last June 9 that this foundation would not create any competition between the Berliner universities and would in fact benefit to all. This foundation could also help with recruiting international researchers of high level, which the universities cannot do.

The spokesperson for the scientific CDU of Berlin, Nicolas Zimmer, is delighted by the not-result of the project of "Supra-university". The main aim of this project was to make of Berlin a site of excellence in research, which is also the aim set of the creation of this foundation.

Lastly, this new Berliner foundation will be with at the Berlin scale, equivalent to an agency of support for research, such as the DFG (German Agency of Means for the University Research), created to support the university research of the Land.

Sources: June 2008

Electronic Bulletin, June 11, 2008

7.20 Wissenschaftsrat presents its recommendations to improve the university education (Germany)

The German Council for Science (Wissenschaftsrat - WR) met on July 2, 2008 for its Summer Assembly. It solicited on behalf of Bund and Länder additional funds to improve the situation of teaching in the German universities. It would require an additional 1.1 billion euros annually for the recruitment of personnel (from professors to tutors) and operational costs.

General Secretary of the Wissenschaftsrat, Wedig von Heyden, noted that "*it is time that the professors become aware of the importance of teaching in research and higher education.*" The Wissenschaftsrat recommends the creation of centers of excellence for university education as well as the establishment of a national prize for the best national university.

For the Wissenschaftsrat, additional money will allow for improved relations between students and the faculty and allow for improved development and mentoring. A new category of professors should be introduced with the title of "specialized professor in education," who could have the option of returning to their research activities if they wish so.

During its assembly, the Wissenschaftsrat also discussed the following subjects:

- In the context of evaluating the quality of the buildings and research facilities at universities, the Wissenschaftsrat has assessed the restoration and rebuilding projects proposed presented by

Länder (states) for the 2009 budget. It gave its recommendations and established a priority list for the projects, the total cost of which would come to 490 million euros.

- In the proposed scheme, the Research Center of Dresden (FZD), made up of 6 research institutes in physics located at Rossendorf, would fit better with the Helmholtz Research Center (HGF), rather than within the Leibniz Community, where it currently resides.
- Similarly, the Interdisciplinary research institute on isotopes at the University of Leipzig should join the Research Center of Dresden (FZD).

The results of this meeting of the Wissenschaftsrat were reported to Berlin on July 7, 2008. The entire set of recommendations is available on the Wissenschaftsrat web site at: <http://www.wissenschaftsrat.de>

Sources: July 2008

Electronic Bulletin, July 9, 2008

Recommendation of the Wissenschaftsrat as pdf : http://www.wissenschaftsrat.de/presse/pm_1308.pdf

7.21 The 2009 Research Budget to Increase by 8% (Germany)

As in the years since 2005, teaching and research will continue to be budgetary priorities in 2009. The 2009 draft budget, adopted Wednesday July 2, 2008 in the Council of Ministers, envisions an increase of 8% (+730 million euros) in the Federal State budget devoted to these two fields. The budget of the Federal Minister of Education and Research (BMBF) will reach 10.1 billion euros in 2009 -- 2.5 billion more than in 2005. In a legislature, the budget of the BMBF will have thus risen by 33%.

"The expenditure on education and research are fundamental investments which take on an absolute priority for this government", noted Annette Schavan, Federal Minister of Education and Research. As for research and development, the financial planning established in the budget 2009 anticipates an additional 300 million euros per annum. The Federal government increases its share of R&D to 2.8% of the GDP by 2009, approaching the European objective of 3% in 2010, underlined Mrs. Schavan. These resources come in addition to the decision taken at the beginning of the session, in particular the high-tech strategy, which supports the development of innovating technologies and the transfer of knowledge with the sum of 6 billion euros (over five years).

The additional funding allocated in 2009 will be primarily devoted to research on climate and energy, with the reinforcement of the capacities of R&D in the small and medium-size companies, along with research on health and the ageing population, and on intensifying international scientific cooperation. The support will increase by 15.2% compared to 2008, to reach nearly 3.5 billion euros in 2009.

The budget of the Federal Minister of Education and Research will continue the modernization of structures and the reinforcement of international competitiveness within the landscape of German research. Under the Pact for Research and Innovation, the major German research organizations will benefit from approximately 3.7 billion euros. Among the projects included is the construction of a German Center for the Neurodegenerative diseases as well as the start-up of the National Academy of Sciences activities established at the beginning of this year.

Sources: July 2008

Electronic Bulletin, July 9, 2008

BMBF : <http://www.bmbf.de/press/2328.php>

- 2009 Budget numbers at : [http://www.bmbf.de/media/press/Eckdaten_RegE_2009_\(Anlage_PM\).pdf](http://www.bmbf.de/media/press/Eckdaten_RegE_2009_(Anlage_PM).pdf)

7.22 New Program for Improving University Education (Germany)

Within the framework of the "Research on Universities" ("Forschung über Hochschulen") program carried out by the Federal Minister for Teaching and Research (BMBF), 30 research partnerships were launched including 60 individual projects aimed at a scientific analysis of the "best education." A total budget of 16 million Euros is devoted to this initiative.

The program "Research on Universities" aims at improving the quality of the university education in Germany, a topic of much discussion. Consideration of the quality of teaching is of particular importance since it is one of the central points of the Bologna process. Various players interested in research policy and teaching recently made recommendations about this problem, considering also the German Scientific advice (Wissenschaftsrat).

The 60 projects were selected by a panel of experts among 170 proposals received. Each one comes from a targeted set of themes and together they cover a broad spectrum of university education. The organization of examinations, the success rate of students, the emergence of community projects in teaching and the general structure of academic teaching will be among the subjects analyzed.

The BMBF aim by the with this new initiative is to give an impulse to teaching in German universities, thanks to the studies and analyses which will have been carried out by these 30 research groups. These 60 projects will be spread out over duration of three or four years.

Sources: August 2008

Electronic Bulletin, August 13, 2008

Site du BMBF : <http://www.bmbf.de/press/2346.php>

7.23 One Million Euros from Private Funds for Research at the University of Kaiserslautern (Germany)

Within the context of reinforcing research structures within universities, the Technical University of Kaiserslautern was selected by the Carl Zeiss Foundation to be the single university of Rhineland-Palatinate to carry out a research excellence initiative. It will receive, on behalf of the foundation, the sum of one million Euros (financed over 4 years) of support its research activities.

The four criteria which used to select the University of Kaiserslautern for this award were:

- excellence in a number of priority fields;
- successful interdisciplinary work;
- innovation and promising practices in research;
- predisposition to obtain federal funding for centers of excellence within the framework of the BMBF program.

Concerning this last point, the university had submitted an unsuccessful proposal for a center of excellence -- "Center for Mathematical and Computational Modeling" - (CM), to develop and apply mathematical models in engineering. Three others centers of excellence were funded in Rhineland-Palatinate, but none included the University of Kaiserslautern.

Sources: August 2008

Electronic Bulletin, August 20, 2008

7.24 Valores: valorization of research (Germany)

The Ferdinand-Braun Institute of High Frequencies Technologies (FBH) of Berlin and the Leibniz Institute of Research and Technology on Plasma of Greifswald (INP) have launched a joint project called VALORES (Valorization of Research Strategic Cooperation off Institutes). It is a strategic cooperation aimed at developing the scientific research undertaken within each organization. Successful work within the framework of industrial research projects and new inventions will be systematically intensified. The two institutes also plan to strengthen industrial connections.

This project, sponsored by BMWi coordinates and intensifies the activities of valorization of the FBH and INP. It will establish programs in the areas of microwave technology, optoelectronics, and plasmas. In general, professional business offices are not interested in the fields of the basic research and unprotected knowledge. Given that this is important in the realization of research contracts, the institutes will develop these competences in-house.

VALORES should become a model for other research organizations and lead to research cooperation with other partners throughout the creative networks to add value to products. With the new business strategy, partnerships should be initiated more particularly with small industry. Finding new partners will reduce the time to market for new discoveries.

Sources: November 2008

Electronic Bulletin, November 19, 2008

Ralf Kerl - Ferdinand-Braun-Institut für Höchstfrequenztechnik (FBH), Gustav-Kirchhoff-Str. 4, D12489

Berlin - phon : +49 306 392 3399 - email: ralf.kerl@fbh-berlin.de - <http://www.fbh-berlin.de>

<http://www.inp-greifswald.de>

<http://www.leibniz-gemeinschaft.de>

7.25 Germany's Excellence Initiative Gets Excellent Marks

Five years ago the term "Elite Universities" was taboo in Germany. Today, it is on everyone's lips. A federal program to support German university research, the Excellence Initiative, has made it possible to launch a revival movement in German higher education and university research. On November 30, 2008, a joint Commission from the DFG (German Research Agency) and the Wissenschaftsrat (Scientific Council - WR) published a report on the status of the project. For both state and federal governments, this report constitutes a basis for revising and continuing the program beyond 2009 (*additional information on the continuation of the program* [1]).

The report indicates that the excellence initiative, which provided two years of supplemental financial support for nine competitively selected "elite universities", 39 doctoral schools, and 37 clusters of excellence, has stimulated an immediate change in the world of German higher education and research. According to its authors, the initiative has reinforced the attractiveness of these institutions to students and scientists, both German and foreign. The initiative's benefit to young people and future researchers has been through promoting access to research infrastructure and by supporting cooperation among universities, research laboratories, and the private sector. It has also allowed the universities to refine their missions.

The report was submitted to the Federal Minister of Education and Research, Mrs. Annette Schavan, who noted, "the excellence initiative has contributed to a positive dynamic in German higher education institutions." The government intends to renew the program beyond 2011. "The political objective is clear," declared the Minister, "we intend to continue the excellence initiative. We must now seek to improve quality of education for all students."

At the outset of the two competitions in 2006 and 2007, the federal and state governments provided 1.9 billion Euros over six-year period (2006-2011). At the Summit on Teaching [2] held on October 22, political leaders decided to renew the program.

Sources: December 2008

Electronic Bulletin, December 12, 2008

[1] <http://www.bulletins-electroniques.com/actualites/55450.htm>

[2] <http://www.bulletins-electroniques.com/actualites/56439.htm>

Full report available in German at: <http://redirectix.bulletins-electroniques.com/TBQuK>

7.26 Six Researchers Receive Funding for "Risky" Research Projects (Germany)

Six researchers were selected by the German Research Agency (DFG) to receive "Reinhart Koselleck" awards for particularly innovating and high risk research. The prize winners will receive 50,000 to 1.25 million Euros over five years.

The "Reinhart Koselleck" awards from the DFG make it possible for researchers to develop projects that could not be realized through normal institutional or DFG funding. Reinhart Koselleck (1923-2006) is one of the most important German historians of the 20th century and a pioneer of modern social history in Germany. The Koselleck projects were initiated in January 2008 by the DFG.

Innovative and risky research is by its nature difficult to plan. Therefore applications for the "Reinhart Koselleck" awards require only a brief description of a few pages. In addition to excellent ideas, candidates must demonstrate their scientific qualifications for the research. *"What interests us are the daring ideas and the person who is capable of realizing them"*, commented Prof Matthias Kleiner, President of the DFG. According to him, until now even famous researchers had very few possibilities for financing risky, but promising ideas. *"The particularly high risk can lie in a daring idea, an original assumption or the application of a new method. The Reinhart Koselleck projects fill an important gap in the portfolio of the DFG and German research support,"* continued Prof Kleiner.

The first six recipients of this new support award are:

- Prof Dr. Klaus Fiedler, Professor of Social Psychology University of Ruprecht Karl in Heidelberg, for the development of a cognitive-ecological approach in decision research;
- Prof Dr. Reiner Kirchheim, Professor of Materials Sciences, Institute of Materials Physics at the University of Georg August in Göttingen, for work on the effect of active substances on interfaces and transposition of defects in solid bodies;
- Prof Dr. Dominik Marx, theoretical Chemistry professor on the Faculty of Chemistry and Biochemistry, University of Ruhr-Bochum, for the theoretical study of chemical reactions following a mechanical effect on chemical substances and in particular on covalent bonds;
- Prof Dr. Erich Schröger, Professor of Psychology at the Institute of Psychology at the University of Leipzig, for his work in cognitive and biological psychology;
- Dr. Roland Schüle, Researcher in Molecular Medicine and Director of the Clinical Research Center at the University of Freiburg, for his research on prostate cancer;
- Dr. Stefan Schuster, Heisenberg Grantee at the DFG and assistant at the Institute of Zoology II at the University of Erlangen-Nuremberg, for studies combining physiology of the behavior, electrophysiology, functional imagery, data-processing and the genetic neuroscience of the zebra-fish.

Sources: December 2008

Electronic Bulletins December 17, 2008

- Additional information in German on the Reinhart Koselleck projects at: <http://redirectix.bulletins-electroniques.com/rKYpp>

- Dr. Sarah Holthausen - Deutsche Forschungsgemeinschaft -Phone: +49 228 885 2032 - email: Sarah.Holthausen@dfg.de

8 Hungary

8.1 Creation of a Center of Innovation in Nanotechnology in Székesfehérvár (Hungary)

On February 14, Mr. Szilveszter Vizi, chair the Academy of Science and Mr. Tihamér Warvasovszky, mayor of Székesfehérvár, signed a cooperative agreement for the creation of the future "Center of Innovation in Nanotechnology" at the Alba Innovation Park in Székesfehérvár. The Academy of Science will provide its expertise and its infrastructure to the project via two of its institutes of research: the Chemical Research center (CRC) and the Institute of Research for the Physics and Sciences of Materials (MFA).

At the same time three laboratories of the Innoparc Alba (effective in 2009) will propose support for the R&D activities of nearby private companies and scientific and technological support to the research centers.

With the establishment in Székesfehérvár of techniques and modern means for the analysis of materials, the Academy reinforces the efforts of the educational institutions in the area for the continuous training engineers, post-doctorate training and technical training for the workforce.

Sources: March 2008

Electronic Bulletin, March 20, 2008 and <http://www.innovacio.hu>

8.2 Hungary spent 1% of its GDP on R&D in 2006

According to the last report of the Academy of Science, Hungary spent 238 billion HUF (922.5 million Euros), or 1% of its GDP, on research and development (R&D) in 2006. This figure rose from 200 billion HUF in 2005. The report was submitted to the Parliament by the president of the Academy Mr. Vizi. It shows that the decline of the subsidies to R&D of the previous years stopped, although the percentage is still lower than the European Union average (1.9% of the GDP). In 2006, the State provided 44.8% of the R&D expenditure, down from 49.6% in 2005. The number of new patents fell from 1,275 in 2005 to 924 in 2006, with a particularly strong fall in the pharmaceutical and biotechnological fields: which decreased from 20 to -25%. Although Hungary counts a satisfying number of "fundamental" researchers and ranks 27th in the number of publication and quotations, the level of innovation and the number of young innovators is declining.

Among the developments of recent years, the report notes that the Hungarian researcher Imre Toth was part of the team that took the Hubble telescope images of the explosion of a comet in April 2006. It also added that the Institute Renyi of Mathematics of the Academy concluded a cooperative agreement with Morgan Stanley investment, which envisages installing its financial center in Budapest.

Sources: March 2008

Electronic Bulletin, March 20, 2008

8.3 Several Hungarian Projects Supported by the Council European of Research

The Council European of Research (CER) launched its first call for projects for "Young researchers" in 2007. The first adopted projects are now known and several Hungarian projects form part of it. The priority project list will be subsidized thanks to the officially announced budget. Considering the very great number of requests, a supplementary budget could be granted to subsidize projects on the reserve list, according to their classification. The CER expects to be able to support 300 additional projects.

Sources: March 2008

Electronic Bulletin, March 20, 2008 and:

<http://www.mta.hu>

<http://erc.europa.eu/>

<http://portal.bme.hu/default.aspx>

<http://www.brc.hu/>

<http://www.elte.hu/>

8.4 The European Institute for Innovation and Technology in Budapest (Hungary)

The Slovenian President of the EU announced today its selection of the Hungarian capital Budapest as the site for the future European Institute for Innovation and Technology (IEIT), which is expected to start operations this summer. The choice of the headquarters of the European Institute of Technology site is of special political importance. The project, initiated by European Commission President Jose Manuel Barroso, was presented at the end of 2006 as a European equivalent of the prestigious American Massachusetts Institute of Technology (MIT). But the ambitions were clearly scaled back last fall. The institute will now host groups of industrial and university researchers. The first two or three will be selected in fields such as energy, climate change, and information technologies, within the next 18 months after the startup of the institute.

Sources: June 2008

Le Figaro June 18, 2008

8.5 Strategic Partnership Agreement between France and Hungary

The agreement, signed at ceremony at the Palais de l'Elysée, establishes a five year program to continue serving the shared research interests of France and Hungary. This agreement is a continuation of the cooperation agreement signed in 1991 between France and Hungary.

Mr. Gyurcsany, Hungarian Prime Minister, declared that this agreement could give a new boost to the Hungarian economy. He mentioned that Hungary offered new possibilities in the fields of biotechnology communications R&D, adding that Hungary's technology and natural sciences training programs are among the best of the area. He noted that France had been a longtime supporter of EC countries. Even today, the annual trade between France and Hungary represent 6 billion euros, against 10 billion euros between France and the German region of Bavaria.

Mr. Guenant announced the creation of a Franco-Hungarian Chamber of Commerce (FRAMAK), including 50 Hungarian members and 20-25 French members. This Chamber held its first meeting in Budapest last June.

Sources: July 2008

Electronic Bulletin, July 11, 2008

8.6 ANR and the National Office for Research and Technology (NKTH) Sign Memorandum (Hungary/France)

Valerie Pécresse, Minister of Higher Education and Research, went to Budapest on May 15, 2008, as part of the preparation for the French Presidency of the European Union. She was accompanied by Jacqueline Lecourtier, director of the National Agency of Research (ANR), Andre Syrota, Director of the National Institute of Health and Medical Research (Inserm), and Jean-François Girard, president of the Research Institute for Development (IRD).

The Minister met with her Hungarian counterparts in education and culture including Istvan Hiller, with whom she tackled questions about higher education; Gordon Bajnai, with whom she exchanged views on respective policies as regards to centers of excellence or competitiveness; and finally with Karoly Molnar, in charge of research and the development policy. The Minister also met with the Hungarian President of the National Office for Research and Technology (NKTH), Ferenc Partos to discuss the Franco-Hungarian cooperation in the field of research and on the priorities of France for the presidency of the European Union.

At the occasion of this trip, ANR and the NKTH initialed a memorandum far-sighted agreement outlining in particular the co-financing of united projects in R&D, in particular in the fields of agronomy, energy, ecology, biology and health.

On May 22, in parallel of the visit of Mr. Gyurcsany, Hungarian Prime Minister, in Paris, Mrs. Lecourtier and Mr. Partos signed a agreement of cooperation. This agreement envisages a call to project in the fields of genomic (vegetable, animal and microbial) and biotechnologies (agrarian, environmental and medical). The total grants over 3 years will be of 12 million euros, supported to equal shares by the two parts. Calls will be launched in 2008 and projects selected in France and Hungary will be able to receive their allocation and start at the end of 2009.

Sources: July 2008

Electronic Bulletin, July 11, 2008

ITD : <http://www.itdh.com/>

ANR : <http://www.agence-nationale-recherche.fr/>

8.7 The European Institute of Technologies (IET) Inaugurated (Hungary)

The first management committee of the European Institute of Innovation and Technologies (IET) [NOTE: this was originally billed as a European MIT, but since re-designed as a virtual institute] was officially named after a lengthy discussion by the European commission. The members of the committee were named by an independent committee, created especially for this purpose.

The 18 committee members represent various fields of research, universities, and industry. Other members will be added to the committee when the first Communities of Knowledge and Innovation (CCI) become operational.

The IET was officially inaugurated in the presence of several Hungarian and European research personalities on September 15, 2008. On that day, the first meeting of the Committee was also held. At this occasion, the committee began a process that will result in the establishment of two or three partnerships, designated "The Communities of Knowledge and Innovation" (CCI). The latter should be launched by December 2009. The CCI are the operational centers of IET.

Sources: September 2008

Electronic Bulletins, September 24, 2008

IET: <http://ec.europa.eu/eit/>

9 Ireland

9.1 The Irish Science and Technology Budget Continues to Grow

The Irish government has just published the first statistical data concerning its economic activity in 2007. In its 2007 budget, the State allocated 2.51 billion Euros to science and technology, a growth of 13% compared to 2006 (+7% after accounting for inflation). This sum is distributed among expenditures related to: higher education (1,150 M Euros), R&D (907 M Euros), engineering departments (231 M Euros), technology transfer (123 M Euros) and others (96 M Euros).

The entire public R&D budget allocation, including European funds and funds for the social sciences (GBAORD), was 995 million Euros in 2007, that is to say a growth of 16% compared to 2006 (+10.6% taking inflation into account). The principal governmental programs are funded through the Science Foundation of Ireland (SFI), which finances fundamental research in Ireland at 155 M Euros, and the Higher Education Authority (HEA), the parent agency of the educational institutions, which finances scientific equipment in the amount of 98 M Euros.

Private investments in R&D are estimated at 1.57 billion Euros. This brings the total amount of public and private investments for R&D to the record amount of 2.5 billion Euros, equivalent to 1.57% of the Irish GNP.

In Ireland, public subsidies for companies take place through two State agencies: Industrial Development Agency (IDA), the Irish agency for the promotion of international investments, and Enterprise Ireland (EI), the economic development agency for companies already established in Ireland. In 2007, IDA supported 45 R&D projects worth 310 million Euros on behalf of foreign investors. EI subsidized 157 R&D projects and nearly 70 technological start-ups. There are now 43 Irish companies (with Irish capital) whose R&D budget exceeds 2 million Euros. The total number people employed in research and development in Ireland stands at 18,500.

For 2008, the budget announced by the government envisions further increases for science and technology. In particular, the Department of Enterprise, Trade and Employment (roughly equivalent to the French ministry for the Economy) will devote 36 million additional Euros to this field. These funds will be used in particular to increase the financing of the Centers for Science, Engineering and Technology (CSET), university centers for public/private research partnerships. This same ministry also envisions a modification of the tax credit making research more attractive to business.

The Department of Education and Science which among other things supports higher education and research, envisions an increase (more than 5%) to a record amount of 1.9 billion Euros. Twelve million Euros in additional funding will be devoted specifically to university research.

Sources: January 2008

9.2 Nanotechnology Research Center Opens in Dublin (Ireland)

A new research laboratory dedicated to the nanosciences has been officially inaugurated in the heart of Dublin on the campus of the University Trinity College Dublin (TCD). Named the Naughton Institute after an Irish industrialist who contributed to its financing, it will have cost a total of 30 million Euros financed mainly by the Irish government. The building has 6,000 square meters over five stories and a basement with a controlled environment especially conceived to avoid the vibrations that accompany research laboratories. The first two stories are devoted to the Science Gallery with exhibits open to the public. The upper three floors accommodate researchers. Planned is for 10 teams and a total of 140 to 150 people. The total cost of the installation, including scientific equipment, is 100 million Euros.

The new institute will lodge the CRANN (Center for Research on Adaptive Nanostructures and Nanodevices) which gathers researchers from three Irish universities: TCD, UCD (University Dublin College) and UCC (University Cork College), two multinationals, INTEL and Hewlett Packard, and 4 small companies. The CRANN was created in 2003 and employs 16 researchers, 71 doctorates, and 50 post-doctorates. Additional recruitment is envisaged in 2008. The CRANN specializes research in three fields:

- Magnetic structures;
- Techniques and characterization of bottom-up nanoscale manufacture;
- Nanobiology.

Sources: March 2008

Electronic Bulletin, March 14, 2008 and Centre for Research on Adaptive Nanostructures and Nanodevices - Trinity College Dublin, Dublin, Ireland - <http://www.crann.tcd.ie/index>

9.3 The Dublin Institute of Technology modifies its intellectual property policy to stimulate innovation

The 'Dublin Institute of Technology' (DIT) has changed its rules concerning the management of intellectual property on inventions from its faculty and students. From now on they will be able, with some exceptions, to hold and exploit the intellectual property rights on their work. This policy is new in Ireland and opposed to what is practiced in other research and higher education establishments which in all cases keep the property and the rights of exploitation of their employees and students' work.

With some exceptions, the intellectual property created by researchers or students of DIT could be marketed by its creator with or without the support of the office of technology transfer. The objective is to motivate the personnel of DIT to exploit to the maximum their ideas and maintain all the benefit for themselves as well as for the Irish economy. The leaders of DIT were inspired by practices in place in other countries, in particular in Canada.

Sources: June 2008

Tom Flanagan, Director - Technology Transfer Office - Dublin Institute of Technology, Dublin, Ireland - <http://www.dit.ie/DIT/industry/TTO/index.html>

"DIT launches radical initiative for students and staff" - DIT news – April 15, 2008 -

<http://www.dit.ie/DIT/news/2008/ip.html>

Electronic Bulletin, June 10, 2008

9.4 Renewable energy: New priority of Irish research

Renewable energy has become the third priority research topic for Ireland. The Irish government just announced it has allotted 90 million Euros in addition to the funds already allocated by the SFI ('Science Foundation Ireland'), to finance research projects on topics of renewable energy and the economics of energy. This sum will be allocated between now and 2013.

The SFI is the principal agency financing research in Ireland. Initially, its main fields were related to biotechnology and information and communication technologies. In these sectors, Ireland has experienced spectacular development and has succeeded in attracting many overseas investments. Until now, they concentrated mostly on financing fundamental research.

With this new priority on energy, Ireland seeks to replicate the economic successes it experienced during the past decade. The government sees this new sector as driving economic development. Ireland

depends on imports to meet nearly 100 percent of its energy needs. Its geographical isolation at the end of the European continent and its weak interconnection with the foreign electrical grid make for a fragile and unstable electric system. Nevertheless, the country has very important and unexploited natural energy resources from wind energy, the ocean, and biomass. These facts led to the decision to launch the 'Charles Parsons Research Initiative' (CPI) with the University of Limerick at the end of May 2008. Equipped with 20 million Euros, this initiative will develop research projects on the following sets of themes:

- Energy generation using renewable sources;
- Biocarburants and advanced energy conversion;
- Energy conservation, storage and effectiveness;
- Environmental Sensors;
- Sustainable development

Sources: June 2008

Science Foundation Ireland - <http://www.sfi.ie/home/index.asp>

Charles Parsons Research Initiative - <http://www.cpi.ul.ie/>

Electronic Bulletin, June 10, 2008

10 Israel

10.1 Scientific Policy and International relations - Nourishing the needs for Industry (Israel)

Ramot, a technology transfer company affiliated with Tel-Aviv University, recently completed 5 technology transfer contracts with world industry leaders:

Johnson & Johnson advanced industrial research - A fund for industrial research was established jointly by Colton Family Next Generation Institute of the Tel-Aviv University and the office of science and technology of Johnson & Johnson. Colton Family Next Generation Institute helps promote the development of technologies in areas still at the laboratory research stage, but which have broad commercial potential. This new financing will be dedicated to research projects in the life sciences which meet specific needs for the industry in therapeutic and diagnostic medical technologies as well as new materials and apparatuses. This financing is the continuation of a long successful history of collaboration between the university of Tel-Aviv and the world pharmaceutical giant.

Cinnamon: the key to fighting viruses? After reading a passage from the Bible seven years ago, Professor Michael Ovadia of the department of Zoology at the university of Tel-Aviv studied the use of cinnamon to fight the viruses. "This paragraph of the Bible explains how priests prepared an oil used on body before making ritual animal sacrifices, tells Ovadia. "The idea I had was to prepare this oil with cinnamon and other spices, which played a part in preventing the diffusion of infectious agents to the near populations". His premonition turned out to be right and in July 2007 a research and licensing agreement on its cinnamon extract (patent application pending) was signed between Ramot and Frutorm, a multinational company based in Israel. The new extract could be used to neutralize viruses and for immunizing against viruses such as influenza, aviary influenza, herpes, Newcastle disease, HIV, etc.. But do not try this at home. Even consuming domestic cinnamon in great quantity does not have this preventive effect and could be harmful, informs Ovadia.

A new opening in the treatment of Alzheimer's - Research undertaken by Professor Ehud Gazit of the molecular department of microbiology and biotechnology led to a licensing agreement for a new drug technology to treat Alzheimer's by the German pharmaceutical company Merz. The exclusive license agreement includes a first payment and payments in the term, as well as rights of royalty on the future sales. The president of the university of Tel-Aviv, Zvi Galil, said about the agreement: "we believe that our cooperation with Merz will lead to the development of a long-sought after treatment for one of the most devastating diseases known to date."

An innovating treatment for adolescent acne --Professors Naftali Savion and Sarah Brenner of the Sackler Faculty of Medicine at the university of Tel-Aviv have developed new treatment for acne. The treatment consists with application of statines - products known to block the production of cholesterol in blood - on the skin of the face. Ramot licensed this technology under the Israeli start-up Lovaderm that developed the treatment in collaboration with a large American company.

A quiet *drilling machine* - Ramot signed an exclusive licensing agreement with Scilence Microwave Ltd. for the development of an innovative technology for drilling by microwave developed by Professor Eli Jerby on the faculty of Fleischman Engineering. The drilling machine uses radiation by microwaves to drill solids such as concrete, ceramics, silicone and glass without presenting the weakening problems of the mechanical drilling machines. This technology allows a clean, quiet drilling with a fraction of the cost of the laser.

Sources: March 2008

Electronic Bulletin, February 27, 2008

10.2 Orange calls upon Israeli technology Telmap (Israel)

Orange, a major French telephone provider, has just signed an agreement with the Telmap company based in Herzliya. For its service Map and Go (GPS navigation starting from the cellular phone), Orange uses a software developed by the Telmap company. The software, in more of traditional navigation, has a function of geo-localization and a mode of compatibility for text messages making it possible to share addresses with other subscribed. This service, launched at the end of January, is downloadable free until April 15 (that is to say the test phase) for most advanced SmartPhones, such as Blackberry, Nokia N95, HTC. If the test is positive, this system could replace the Orange navigation, which has been proposed in France and in the United Kingdom for several years. The Israeli company created in 2000 was indicated in 2006 appearing among the three highest companies in the World Economic Forum.

Sources: March 2008

Electronic Bulletin, February 27, 2008 and:

<http://redirectix.bulletins-electroniques.com/SQIRm>

<http://redirectix.bulletins-electroniques.com/UjN1d>

10.3 Yahoo in the Holy Land (Israel)

After Google, Microsoft or INTEL, Yahoo opens its research and development center in Haifa. According to the Ha'aretz newspaper, it will initiate a strategic partnership with the Israeli gate Walla!. The Californian company currently negotiates workspaces within Matam, the technological park of Haifa which hosts already around fifty High Tech companies among which the international Microsoft, Elbit Systems and Philips. By this partnership, Yahoo understands to develop a local expertise in technologies of advertising research like the payment on line or targeted research. Yahoo wants to develop technologies and databases resting on the platform AdVantage of Walla! While enhancing the services of information, research and electronic mail, Walla! was one of the most popular gates of Internet in Israel. After twelve years, it was the Web site more visited in the country until google.co.il came in 2006

Sources: March 2008

Electronic Bulletin, February 27, 2008 and:

<http://www.walla.co.il/>

<http://www.google.co.il/>

<http://www.yahoo.com/>

<http://redirectix.bulletins-electroniques.com/5okhG>

10.4 Scientific Events in Israel

International Conference on Industrial Logistics - Tel-Aviv, March 9 to 15

<http://www.ortra.com/icil08/>

17th International Exhibition for Medical Technologies and Hospital Supplies - Tel-Aviv, March 11 to 13

http://www.stier.co.il/english/fair_medax.htm

Technologies Hi-Tech 2008 : international electronics exhibition - Tel-Aviv, March 17-18

<http://redirectix.bulletins-electroniques.com/MW6T>

International Workshop on Modelling anomalous diffusion and relaxation - Hebrew University of Jerusalem, March 23 to 28

<http://users.physik.tu-muenchen.de/metz/jerusalem.html>

9th European Advanced Equipment Control / Advanced Process Control (AEC / APC) Conference - Tel-Aviv, March 31 to April 2

<http://www.aecapc-europe.com/>

IEEE COMCAS 2008 : international conference on microwaves, communications, antennas & electronic systems - Tel-Aviv, May 13-14

<http://www.comcas.org/>

6th exhibition and convention : PREVENTIVE NUTRITION - Tel-Aviv, May 25-27

<http://nutrition.beatman.com/>

9th International Conference on ART2008 : Archeology Heritage - Jerusalem, May 25 to 30

<http://www.isas.co.il/art2008/index.php>

7th national life science & technology week : BIOMED ISRAEL 2008 & 2nd international stem cell meeting - Tel-Aviv, May 27 to 29

<http://www.kenes.com/biomed/>

Sources: March 2008

10.5 An European Dimension for the Technical Institute of Haifa (Israel)

The publication of the final results of the European Research Commission research programs for promising young scientists shows that the Technical Institute of Haifa received the second largest number of awards among the European universities and the first place in Israel. Two young women and five young men were awarded research grants for a total of approximately a million euro each.

The seven researchers are: Dr. Aharon Blank (chemistry); Dr. Debbie Lindell (biology); Dr. Shahar Mendelson (mathematics); Dr. Eldar Fischer (data-processing); Dr. Isaac Keslassy (electric engineering); Dr. Kinneret Keren (physics) and Dr. Shy Shoham (biomedical engineering). All having obtained their doctorate during the last nine years.

Sources: July 2008

Electronic Bulletin, July 17, 2008

<http://pard.technion.ac.il/press/PressrelE.asp>

<http://www.technion.ac.il/>

11 Italy

11.1 Two Million Euros Allocated for Researchers at Roma Tre (Italy)

The vice-chancellor of Roma Tre, Guido Fabiani, has decided to give 2 million Euros to the researchers of this troubled University. This translates into 40 new positions for young researchers who would be hired for an indefinite term. Guido Fabiani indicated that this is the first step in a three-year program to provide for the rapid integration of new [researchers]. Of the total, 1.3 million are allocated for doctoral fellowships, with a 50% increase in their size. The vice-chancellor guarantees a fund to facilitate support

for projects presented to the Ministry. Five hundred thousand Euros will be used to support foreign "visiting professors" and student "experts" from the around the world.

Fabiani said that the housing project in the district "Valco San Paolo" is also ready. It will be in addition to real university campus, including parking lots, sports centers, swimming pool, a day care center and a subway station. A strong emphasis will be placed on material science and nanotechnologies, in collaboration with CNR (the National Council of Research) and the INFM (National Institute of Materials Physics). The vice-chancellor sees the reform of the Valco San Paolo district as a strategy for developing and consolidating research and training and connecting the university with international centers of excellence. It is important to interact with French Higher Educations, the Foundation Levi Montalcini, the EBRI (European Brain Research Institute), CNR and the INFN (National Institute of Nuclear Physics).

Source: February 2008

Electronic Bulletin, February 5, 2008

11.2 Agreement Between the Ecole Normale Pisa and IBM (Italy)

The first Italian center specializing in quantum computing and designed to explore the potential and the impact of quantum computers and the development of software for the future has been established at the Ecole Normale Supérieure de Pisa, in collaboration with IBM.

This new generation of machines will use the information that corresponds to the different energy levels of subatomic particles rather than "bits." Rosario Fazio, head of the research laboratory at the Ecole Normale, poses the main problem: how to handle these quantum systems – how to write their software.

The center in Pisa is already part of a collaboration between IBM and the Spanish ICFO (Institute for Photonic Sciences), a leader in the field of quantum optics, and is part of an extensive project that also includes the Department of Physics and the IBM Research Laboratory in Rome where more than 500 researchers are employed. Unlike current software, the various energy levels of quantum systems may be in a superposition of states that allows for development of data much more quickly and efficiently. Historically, IBM has invested heavily in basic research and is very attentive to new technologies, such as nanomaterials.

The initial contribution of the company amounted to 25,000 dollars in the first year. The Department of Defense the United States has long invested in this sector, which is also a priority for the European Commission. Centers such as the CQC of Cambridge and Oxford indicate that there is no shortage of interest in Europe and the centre in Pisa aims to capitalize on the value of "Italian intelligence" prevalent in the various universities such as Salerno, Pavia and Bari.

Source: February 2008

<http://www.qti.sns.it> - <http://www.icfo.es>

Electronic Bulletin, February 5, 2008

11.3 Financing of a Biotechnology Project of Excellence in Lombardy (Italy)

A project entitled "*Innovative processes for the biosynthesis of anthracyclines antitumor*" has won approval as part of the financing for the Lombardy region as a way to promote excellence in the industrial districts of the area.

This project was presented by the company Biofin Laboratories SRL, in collaboration with NaxosPharma SRL, Solaris Biotechnology SRL, and with the participation of the IGM (Molecular Institute of Genetics) of the National Council of Research and has received financing of 637,000 Euros (out of a total cost of 1,590,000 Euros).

The research, directed by Dr. Anna Ivana Scovassi, will test the biological activity of new derivatives of anthracyclines (which are chemotherapy compounds) on various biological parameters of human tumoral cellular lines. The objective is to validate the effectiveness of the new derivatives and possibly patent them. For the IGM, this is the first attempt at integrating projects typically reserved for small industrial companies.

Source: February 2008

11.4 Data-processing Center in Pisa: Agreement between the College for Teacher Training and IBM (Italy)

The Quantum Information Center, Center Competence, opened in February at the College for Teacher Training of Pisa. This first center dedicated to quantum data processing was born from a collaboration with the [computing] giant IBM. This approach is directed toward exploration of the potential impact of quantum computers and also towards the development of the software of the future. Rosario Fazio, the person in charge of the laboratory at the Teacher Training School specifies that it is no longer a question of improving what already exists, but rather one of advancing with a completely new technology. It should be noted that these computers exist for the moment only on paper, but the prospects are very stimulating.

With this new generation of machines, information would not correspond any more to bits but to various energy levels of the subatomic particles. The various energy levels can be in a superposition of states which would allow a much faster data processing. R. Fazio notes that the central problem is to understand how to handle these systems, i.e. to write their software. The center of Pisa fits in collaboration already committed between IBM and the Spanish Institute of Photonic Sciences (ICFO), one of the world references as regards to quantum optics. Bringing together a fuller project also includes the Department of Physics and the IBM Laboratory of Research from Rome, where over 500 researchers are working.

Sources: March 2008

Electronic Bulletin, March 14, 2008 and guidoromeo.nova100.ilsola24ore.com

11.5 Energizing Agreement Between the ENI and MIT of Boston (Italy)

Paolo Scaroni, managing director of ENI (Ente Nazionale Idrocarburi), made the official advertisement on February 26 2008 of a strategic agreement of collaboration with MIT (Massachusetts Institute of Technology), one of the objectives being the development of solar panels. Scaroni is convinced that the alternative to fossil energies is solar; wind and biomass will only partially contribute to solving the energy. In a conference in Boston, he declared that there is much progress needed in collecting solar radiation effectively. According to Scaroni, one does not have to expect revolutionary results in the short run but the "great jump" could not be so distant. Today, silicon is used for the photovoltaic panels but other materials are suitable to equip future installations.

In the five next years, ENI will invest 50 million dollars in this agreement, seeking new technologies for solar energy. The agreement with MIT also includes a study of new technologies for oilfields and methane research in sea-beds and in the Arctic permafrost, research on the capture of carbon dioxide emitted in the atmosphere, and other analyses on climate change. Within the framework of a program called Solar Research Borders (with a total investment of 25 million dollars) the joint efforts of ENI and MIT will focus on the solar research. Scaroni adds that there is the possibility of a joint research protocol with Politecnico di Milano, following the dialogue of November 2007.

Additional information can be requested to: scrivi@paoloconti.net

Sources: March 2008

Electronic Bulletin, March 14, 2008

11.6 New Italian Agency for the Diffusion of Technologies (Italy)

On November 28, 2008, the Minister for Public Administration, Renato Brunetta, inaugurated the Agency for the Diffusion of Technologies in Milan. The headquarters will be located in the center of Milan, near the Chamber of Commerce. The Minister explained that the financial investment will be 5 million Euros. The goal of this agency, chaired by Professor Renato Ugo, is to connect research to production by identifying and adding value to new knowledge, new technologies, patents, and industrial applications at both the national and international levels.

The Minister, Renato Brunetta, explained that this Agency is a "European jewel" and that the town of Milan was selected for the headquarters because most Italian innovations originate here. Indeed, as the mayor of Milan, Letizia Moratti and the vice president of the Province of Milan, Alberto Mattioli, noted, 25 percent of research related expenses occur in Milan, which produces 35 percent of patents as a result. Mattioli took the occasion to point out the importance of making this agency operational as fast as possible by signing the initial agreements.

The minister concluded by saying that he would closely follow the evolution of this project and that he would travel to Milan every six months to check on the progress of the work in order to avoid leaving Italian innovation in the hands of incompetent "do-it-yourselfers."

Sources: December 2008

Electronic Bulletin, December 11, 2008

12 The Netherlands

12.1 Netherlands Prepares a "Code of Conduct" for Biosecurity

The dangers raised by the increasingly large knowledge of biological materials were discussed at an inter-academies network (IAP) that brought together several academies of Science and led to a Joint Declaration involving 68 members. The Netherlands is one of the first countries in the world to adopt a code of practice of the biosecurity.

This code is designed to warn and inform scientists of the potential dangers of research in this area. It was developed by a working group led by the Royal Academy of Arts and Sciences (KNAW). The code defines responsibilities, the terms of governance and sanctions. As a code of conduct is only useful if it reflects scientific practice, members of the research community and representatives of the business world, as well as institutional investors were involved at the earliest stages of the development of the code.

The code was presented on 22 October, 2007 at Mr. Renk Roborgh, general manager of the higher and professional education at the Dutch Ministry of Education and Culture (OCW). Numerous conferences are planned in 2008 in order to ensure a broad dissemination [of the code] within the scientific community.

Sources: January 2008

12.2 The University of Twente invests 40 million Euros in a new nanotechnology laboratory (The Netherlands)

The construction of NanoLab in the area of Twente began officially on January 31, 2008. By 2009, NanoLab will shelter the Institute MESA+ for the Nanotechnology of the University of Twente. The budget of the project is valued at more than 40 million Euros, including 25 million Euros for the building and 15 million Euros for equipment. A third will be paid by NanoLab NL, the national program for nanotechnology infrastructure. The province of Overijssel also contributes a million Euros. This new laboratory is a major improvement over the current NanoLab which dates back to 1991. It will have 800 square meters of laboratory and 1000 square meters of clean rooms. These clean rooms will be built on foundations able to resist seismic tremors, specifically designed for NanoLab.

Sources: April 2008

<http://www.mesaplus.utwente.nl>

12.3 Dutch Organization for Scientific Research Grants 18 million Euros to 9 Large Projects (The Netherlands)

The Dutch Organization for Scientific Research (NWO) granted 17.9 million euros to nine investment projects in universities and research institutes. These projects were selected among sixteen proposed

projects responding to the request for applications by NWO. This program will provide equipment for high level innovative scientific research that demonstrates a connection to national needs..

The equipment ranges from a mass spectrometer for the study of protein-protein interactions, (1 087 000 Euros), at the medical centre of the Erasmus University of Rotterdam, to a DNA database which will store DNA data of at least 165 000 people (5 137 000 Euros) at the University of Groningue. In addition to equipment related to biological and medical research, the program will fund a nano-imagery real-time microscope which will facilitate the study of specific nano materials (2 325 000 Euros), to the University of Leyde and a database of registered toll passages to Øresund (Denmark) to examine the economic expansion and contraction of the Netherlands between 1500 and 1850, (1 247 500 Euros) to the University of Groningue.

Sources: July 2008

Electronic Bulletin, July 17, 2008

12.4 The Dutch government allocates 25 M euros to research on transport and logistics (The Netherlands)

The Dutch government decided to allocate a subsidy of 25 million euros to the sector of innovation in transport and logistics. The objective is to push the Netherlands by 2020 at the European leader in the field of the management of provisioning.

Ministries for the economic, transport, public works business and management of water made this announcement on July 9th. These funds planned over four years will be used to set up the recommendation of the report "Logistics and chain of supplies. This report was prepared by the Van Laarhoven committee including representatives of the university community as well as Dutch industries in the sector.

Three technological universities (Delft, Eindhoven, Twente) as well as Erasmus University of Rotterdam have to play a leading role not only as scientific partners of the program but also in the creation of a campus (university-industry innovating) dedicated.

Sources: July 2008

Electronic Bulletin, July 17, 2008

<http://www.tue.nl>

12.5 Narcis: A Portal to Scientific Research in the Netherlands

The database NARCIS (<http://www.narcis.info>), developed by the Royal Dutch Academy for Arts and Sciences, constitutes a true portal to the scientific research in the Netherlands. NARCIS is the result of a close cooperation between the Dutch Organization for Scientific Research (NWO), SURF the main actor of information in the fields of higher education and research as well as the Dutch research establishments and universities.

NARCIS is subdivided in four sections:

- The principal section provides information on researchers, research institutes and current or recently completed research programs. It is also possible to run a search of 160,000 scientific publications and more than 2,100 databases files.
- The DAREnet section allows a user to access and download publications from all universities, the KNAW, the NWO as well as other research institutes.
- The "Cream of Science" section concentrates the 50,000 most important publications from 217 high level researchers, of which nearly 30,000 are available for downloading.
- The "Future Sciences" section for doctorate students gives access to 20,000 theses defended in Dutch universities.

The internet site associated with NARCIS provides continuously updated information every hour generated from such sources as Intermediair, Science Guides and Elsevier. It is also possible to register for automatic alerts when the databases in a specific field are updated.

Sources: October 2008

Electronic Bulletin, October 16, 2008

Elly Dijk, KNAW Research Information - Phone: +31(0)20-4628658 - email : narcis@bureau.knaw.nl

<http://www.knaw.nl>

12.6 Dutch Researchers Champions in ERC Proposal Submissions

Dutch researchers have received proportionally the most awards in the call for proposals from the European Research Council (ERC). The ERC grants fund projects on the basis of the scientific evaluation carried out by peers. During the first call for projects of the ERC, based on a total of 2,167 proposals, only 256 were financed and among them 16 from Dutch researchers, which accounts for 6% of the financed projects. The United Kingdom is at the top of the list with 21%, followed by France (13%), Germany (11%), Switzerland (9%) and Italy (8%). The Netherlands, which placed after Italy in absolute terms, actually has an exceptional score. Based on the number of researchers in the country, they are in first place.

This success would return a budget of 35 million Euros to Dutch researchers. It should be noted that 7 of the 16 projects approved by the ERC had already received the Spinoza prize from the Dutch Organization for Scientific Research (NWO), equivalent of the gold medal of the CNRS.

Sources: December 2008

Electronic Bulletin, December 23, 2008

<http://www.nuffic.nl>

13 Norway

13.1 Wireless Sound Monitoring System in the Barents Sea (Norway)

The Barents Sea, in the North of Norway, will be soon equipped with a new monitoring system using wireless sound signals. The project called "polar areas, a new nervous system" began last year with a budget from 21 million Norwegian crowns (approximately 4.1 million US\$). Kongsberg Maritime, Fugro Oceanor, Statoil, Geco Western, the Research Institute of the Sea and the University of Trondheim hope that the project will make it possible to monitor the sea in the same way as on land or in the air.

The idea would be to create points of attachments on which would be placed communications sensors. The ties would be at the sea-bed level but could also float at the whim of the currents. Another option would be to place the sensors on small submarines, in particular at the time of specific explorations. Knyt Grythe, researcher at SINTEF, is also considering the possibility of attaching the sensors to floating buoys in order to be able to communicate via satellites.

For wireless communication under water, only sound functions properly. The researchers must face various obstacles. First of all, sound travels more slowly under water. Moreover, the sound tracks vary according to the temperature and the salt content. The researchers decided to borrow methods and technology of the cellular telephones that will be tested in the year to come.

At the University of Trondheim, Professor Jens Hovem was a pioneer in the wireless underwater communication project. In collaboration with Yngvar Olsen of the department of Biology, and a group of researchers, Hovem had the idea to transform the fjord of Trondheim into a research platform. This laboratory on the open sea meets a need expressed by many. People of varied sectors such as the marine biology, archaeology or environments can now work together. A smaller scale makes it possible to check certain assumptions before launching out on the great projects such as that of the Barents Sea.

Sources: March 2008

13.2 Observatory for the Aurora Borealis in Svalbard (Norway)

The observatory Kjell Henriksen (KHO), located at 500m above sea level on the Breinosa Mountain near Longyearbyen, was officially inaugurated on February 18, 2008 by the Norwegian Minister for Research and Higher Education, Mrs. Tora Aasland, in the presence of the Swedish astronaut Christer Fuglesang, the family of Kjell Henriksen, and 70 other eminent Norwegian and foreign guests.

This observatory, with a total surface of 780 m², is part of the University Center of Svalbard (UNIS). It aims, for example, to facilitate data collection that will improve scientific understanding of the interactions between solar wind and the Earth's magnetic field, and the effects that it may have on the climate. It is the nucleus of an international research group composed of: 16 organizations of research belonging to 7 countries (among them, the University of Alaska-Fairbanks, University College of London and the National Institute of Polar Research of Japan); and universities on the mainland of Norway with which it works in close cooperation.

Within the framework of its developmental strategy in the Far North, the Norwegian Government aims to provide an increased importance to Svalbard as a platform of international research on environmental issues and the climate. "I am convinced that the new observatory Kjell Henriksen will make an important contribution to the research infrastructure in Svalbard and in the future of the international co-operation of research", Mrs. Aasland said in her opening speech.

Svalbard is a unique place for research on the aurora borealis since it is within the magnetic polar horn. Previously located at Adventdalen, the observatory had nevertheless to be moved to high mountain following a growing problem of light pollution coming from Longyearbyen which affected the photosensitive optical instruments.

The International Polar Year 2007-2008, of great importance for the Far North and the world challenges, is the ideal background for this inauguration. "We waited a long time for this day and are extremely proud to open in the north the world's most modern observatories of aurorae boreales", explains the Director of UNIS, Mr Gunnar Sand. "It is a step of giant for Norwegian research but also for the other countries with which we collaborate", adds the Professor and Director of the observatory Fred Sigernes.

Sources: March 2008

Electronic Bulletin, March 7, 2008 and University Centre in Svalbard (UNIS) - PO Box 156, 9171

Longyearbyen, Norway - <http://kho.unis.no/> - Fred Sigernes, Prof. UNIS / Directeur de KHO - Phone: + 47 79 02 33 35 - Email: fred@unis.no

13.3 Is the Antarctic as Exposed to World Pollution and Climate Change as the Arctic? (Norway)

The NILU (Norwegian Institute of Research on the Air) is about to finish the first annual cycle of measurements of pollution in the Troll station in the Antarctic. It is well-known that the pollution generated by the northern hemisphere accumulates in the Arctic, causing serious problems in the food chain of the Arctic and reinforcing the climatic changes in the area.

Currently, the NILU is trying to determine the extent to which the mechanisms of transport and rates of pollution in the Antarctic are comparable with those in the Arctic. The Troll station is of particular interest because of its position on the slope between the plate glacier and the coast, where marine and continental air masses meet and mix. Research on such sites can help interpret measurements of gas traces in icecores, which plays a central role in climate research.

Sources: March 2008

Electronic Bulletin, March 7, 2008 and Gunnar Jordfald: NILU (Norwegian Institute for Air Research), P.O Box 100, 2027 Kjeller - Phone: +47 95 24 63 43 - Fa : +47 63 89 80 50 - Email: gj@nilu.no

13.4 The Norwegian Council of Research proposes to a new strategy

The Norwegian Council of Research (Norges Forskningsråd, NFR) recently launched a new ambitious strategy of financing of the "Tools of Research" so that the Norwegian scientific community is recognized internationally for its remarkable infrastructure of research.

Investments targeted in the state-of-the-art equipment would allow:

- to reinforce the competitiveness of Norwegian industry on the international scene;
- to promote Norway like a partner of choice for the national and international companies which would wish to establish a research cooperation;
- to motivate the best international researchers to come to undertake their activities of research in Norway;
- to encourage more young people to continue a career in research.

According to NFR, an increase in the investments in the infrastructures of research for 800 million NOK per annum (100 million Euros), over one ten years period, is necessary.

Sources: April 2008

The Research Council of Norway - P.O Box 2700 St. Hanshaugen, 0131 Oslo, Norway - Visiting address: Stensberggata 26, Oslo - Phone : +47 22 03 70 00 - email: post@forskningsradet.no and Bulletin Electronic, April 3, 2008

13.5 1998-2008: first high level research program in Norway: installation and assessment (Norway)

A program of high level research, the Toppforskningsprogrammet (TFP), was set up by the Norwegian Council of Research in 1998. This program, precursor since the idea of elite never had not been accepted before in Norway, started in the domain of "Medicine and Health" and had the ambition to train "nobelisable" researchers in their field of research during ten years. Professor Rolf Seljelid played a major role in the development of high level Norwegian research. It proved to be difficult to obtain private funds, the sponsors having the idea that their support was not appreciated for its right value by the public sector. In 2003, the funds collected from the private section reached about 50%.

Ten years after, it is time to evaluate. The 8 researchers selected for the program are all excellent in their respective field: several world-wide recognized, some obtained international prizes for their research in medicine and some are invested in programs of the Council of Research.

The program has, in spite of its success, being stopped, the objective "to form Nobel Price winners" not having been reached. Seljelid, which devoted ten years of his life to this project, is today frustrated by the short-term policy of Norwegian research.

Sources: April 2008

Bulletin Electronic, April 3, 2008

13.6 The chairman of SINTEF, Unni Steinsmo, elected official at the European Research Area Board (ERAB) (Norway)

On April 11, 2008, the European Commission announced the composition of the European Research Area Board (ERAB), group of experts in the field of the European policies of the research and the technological development whose mission will be to advise the European Chief for Science and Research, Janez Potocnik.

The chairman of SINTEF, Unni Steinsmo, was one of the 22 eminent representatives of European research was selected from among 400 candidatures. It is an extremely important position within European research council as ERAB will play a key role in developing, facilitating and evaluating the research policies of the European Union.

Sources: May 2008

ERAB (<http://ec.europa.eu/research/erab>)

Press Release from the EC : <http://redirectix.bulletins-electroniques.com/4yjC2>

Electronic Bulletin, May 9, 2008

13.7 Oslo Conference on the International Polar Year (Norway)

In June 2010, Oslo will host a scientific conference which will be first direct interaction among the projects of the International Polar Year (IPY) (2007-2008). Scientists throughout world, logisticians, and communication officials of Norwegian Polar Institute (NPI), who have been involved in the IPY view this conference as an opportunity to share scientific results and to underline the fact that data from the IPY will generate discoveries for years to come.

The conference will accent the breadth and global impact of polar research during the IPY. It will clarify the interdisciplinary and international research as well as communicating research to the public. The participants will present their initial scientific findings on all topics investigated during the IPY, particularly in such high priority fields as:

- Connections between the polar regions and global systems;
- Changes in the polar regions in the past, present and future;
- Polar Ecosystems and biodiversity;
- The health and well-being of inhabitants and communities of the north;
- New frontiers and new directions for polar research.

Sources: September 2008

Electronic Bulletins, September 15, 2008

Conference web site: <http://www.ipy-osc.no>

13.8 Indian Research Base Himadri Opens in the Arctic (Norway)

The Indian Minister for Science and Technology, Kabil Sibal, recently returned to Ny-Alesund in Svalbard where he officially opened the new Indian polar research station. During his visit, a Memorandum of Agreement on the cooperation in Polar Research was signed between the Indian Research National Center on the Antarctic and Oceans (NCAOR) and the Norwegian Polar Institute (NPI).

Present at the inauguration in Ny-Alesund, were the Norwegian Minister of Higher Education and Research, Tora Aasland, political decision makers from various countries and many recognized polar scientists, including the research director of the Norwegian Polar Institute, Kim Holmén. France was represented by the Senator Christian Gaudin and the Ambassador Delegate for the Environment, Laurent Stefanini.

The Indian Research base is equipped with modern installations and will undertake research throughout the year in the Arctic sciences, with a particular emphasis on climate change. With the new station, India becomes the 12th country to have a permanent scientific research presence in Svalbard. The other countries from Asia represented in Ny- Alesund are China, South Korea and Japan.

Sources: September 2008

Electronic Bulletin, September 15, 2008

<http://npweb.npolar.no/english/articles/1215606949.23>

13.9 New Cooperative Agreement between Norway and France

The French Minister of Higher Education and Research, Mrs. Valerie Pécresse, and the Norwegian Minister of Research and Higher Education, Mrs. Tora Aasland, concluded an agreement on July 17, 2008 in Versailles, France, which will make it possible to reinforce their bilateral collaboration in scientific research, technology, and innovation, in particular with regard to climate, energy, and conditions in the Far North. This research collaboration is already well established and partly supported by the Franco Norwegian Foundation (FFN), managed in Norway by the Norwegian Council of Research.

Norway and France have shared interests in a number of fields such as marine research, energy and climate, and space research. A mixed work group will be invited to specify the future fields of research for this collaboration following newly signed agreement. Research relative to the Far North constitutes a

priority field. Norway and France work together on a certain number of projects within the framework of the International Polar Year and France has its own research station in Ny-Alesund in Svalbard.

Sources: September 2008

Electronic Bulletins, September 15, 2008

Research Council of Norway August 2008- <http://redirectix.bulletins-electroniques.com/YdESj>

French Embassy in Norway : http://www.ambafrance-no.org/article.php3?id_article=926

13.10 Twelve projects of collaboration between Norway and the United States will receive in 2008 funds for four years

Twelve projects of collaboration between Norway and the United States were adopted and will receive a financing of NOK 1,750,000 (approximately 218,750 euros) for the next four years to come.

The program of partnership in higher education between Norway and North America (2008-2011) is part of the strategy for the reinforcement of the cooperation in higher education. This strategy aims at reinforcing the high-quality of the academic relations between the partner establishments in Norway, in the United States and Canada. The program is financed by the Norwegian Ministry of Education and Research. It is managed by the Norwegian Center for the International Cooperation in Higher Education. Forty four applications were submitted.

The adopted projects are the following:

- University of Bergen/Bjerknes, Research Center on Climate, in collaboration with the University of Washington
- Høgskolen I Bodø/Far North, Centers for Business, in collaboration with the University of Alberta
- Norwegian University of Sciences and Technology (NTNU), Department of Biology, in collaboration with the Polytechnic University of California
- University of Oslo, Faculty of Education, in collaboration with The University of California - Berkeley
- University of Oslo, Department of Earth Sciences, in collaboration with the University of Ottawa
- University of Bergen, Department of Mathematics, in collaboration with the University of Princeton
- University of Agder, Department of Information Systems, in collaboration with the University of Nebraska, Omaha
- University of Oslo, Center of Mathematics, in collaboration with the University of Tennessee
- University of Oslo, Department of Data Processing, in collaboration with the University of Toronto
- Høgskolen I Vestfold, Faculty of Science and Engineering, in collaboration with The University of California - Berkeley
- University of Tromsø, Centers for the Sami Studies, in collaboration with the University of Montana
- Norwegian University of Sciences and Technology (NTNU), Department of Electronic Engineering, in collaboration with the University of Minnesota.

Sources: September 2008

Electronic Bulletins, September 15, 2008

<http://www.siu.no/en/Programme-overview/Norway-North-America>

13.11 Norway Welcomes Top U.S. Doctoral Students

The U.S. National Science Foundation (NSF), in an effort to enhance the international experience of its doctorate students, is financing research visits in the Scandinavian countries. The first countries to welcome them will be Norway and Finland.

In cooperation with the NSF, the Norwegian Research Council has set up a program to encourage American doctoral students to spend part of their training in a Norwegian research institute. The program applies to the students sponsored within the framework of a NSF Graduate Research Fellowship Program (GRFP). The program, "Nordic Research Opportunity," offers a certain number of American doctoral students the opportunity to increase their experience at an international level at the beginning of their career. Norway and Finland were selected as the first partners. The recipients of this program will

continue to receive support from NSF, while the Norwegian Research Council will support them by covering expenses over a two to twelve month period. The program is initially planned for three years.

"The Norwegian Research Council is very happy with the inauguration of this program. The doctoral students financed within the framework of the NSF research grant are selected by a highly competitive process and, consequently, are highly qualified. Some of them will most certainly assume important positions in their field of research in the United States in the years to come. This gives the Norwegian research communities a fabulous opportunity to establish and to reinforce relations with the United States research community", explains Arvid Hallen, Managing Director of the Norwegian Research Council.

Terje Emblem, Special Adviser for the Norwegian Research Council, developed the Norwegian part of the program, in collaboration with American colleagues and the Adviser for Science at the Embassy of Norway in Washington. "The Norwegian institutions which accommodate these researchers will have an opportunity to widen their scientific networks and to reinforce their reputation at the international level," says Mr. Emblem.

The program "Nordic Research Opportunity" was launched thanks to a long collaboration between the Norwegian Research Council and the National Science Foundation. The Americans took the initiative to set up this program, but goals are completely in agreement with Norway's strategy of increasing its research and technology cooperation with North America. The Norwegian Minister for Education and Research, Mrs. Tora Aasland, gave solid support to the program which is now up and running.

Sources: November 2008

Electronic Bulletin, November 26, 2008

Terje Emblem, Special Adviser, Division for Science, Department for the Humanities - Phone: + 47 22 03 72 27 - Fax: + 47 22 03 72 78 - Email : tem@forskningsradet.no

14 Poland

14.1 Polish research wants to reorganize before 2015 (Poland)

More innovation, competitiveness and internationalization are the three objectives of the strategic reorientation of Polish research over the period 2007-2015. To meet these objectives will require major evolutions within the Polish scientific community. The goals of the previous government should not be affected by the victory of Donald Tusk and the appointment of Barbara Kudrycka as Minister for Science and Higher Education. The program will include an in-depth reorganization of the research institutes and their mode of financing, a strong increase in the resources devoted to research, and a strengthening of international co-operation

In following the practice of many countries, the government wishes to separate the research financing from its execution. To accomplish this it is setting up a national financing agency -- the National Center for Research and the Development. The purpose of this center is to develop requests for proposals and evaluate and finance R&D activities on a competitive basis. Priority will be granted to research projects that include private sector partnerships. At the same time a small number of research institutes will be reorganized; some through consolidations, others through privatization, and others will be closed. Simultaneously, the government will seek to double the share of the GDP going to research from the current level of 0.62% to 1.26% in 2015. The state investment will increase by a factor of 2.5 and this, along with direct appropriations, bank loans, and multiple tax breaks will encourage the private companies to invest more in R&D

The third aspect of the reorganization is the use of the European structural funds. By 2013, Poland will allocate more than 12 billion Euros to modernize research infrastructure and develop new programs focusing on young researchers. The international mobility of the doctorates will be supported, thanks in particular to the Polish Foundation for Science which will be in charge of the implementation of programs

for the doctorates and the post-docs. Already, Poland looks forward to closer association with its counterparts such as INSERM, INRA and other European organizations.

Sources: March 2008

Electronic Bulletin, March 4, 2008

14.2 Poland and the Spectre of the "Brain Drain"

Approximately two million Polish citizens have left their country since the entry of Poland in the EU in 2004. A wound opened in the economy of the country, which particularly touched companies in the building and medical sector. What's about researchers? It seems that they have not escaped this brutal exodus. While waiting for the publication of reliable study during 2008, the Central European Forum on Migrations (CEFMR), based in Warsaw, reflects concerns about the results of a questionnaire carried out within the Polish research community residing in Germany and England. Close to a quarter have no plans to return to Poland, and half of those questioned are uncertain. This gives credibility to a phenomenon which threatens the long-term quality of Polish research, especially as it touches mainly the post-docs who are attracted by the financial conditions in the Western European countries.

Plans for improving the situation are in place. The Polish Foundation for Science (FNP) proposes each year about fifteen grants for the return for young researchers (less than four years after the doctorate). This program, called 'Homing', finances research projects over two years with an aim of reinstating the Polish researchers, while maintaining contact with their host countries, because the mobility of the researchers remains one of the dominating elements of the construction of European Space for Research...

Sources: March 2008

Electronic Bulletin, March 4, 2008 - Academia, magazine of the Academy Polonaise of Sciences (SIDE) and the Polish Foundation for Sciences (FNP)

14.3 Polish Committee for Bioethics Delayed

In 2004, a group of high-level scientists in the Polish Academy of Sciences (SIDE) formulated a proposal to the Polish government concerning research on the cells stocks and therapeutic cloning prohibited by Polish law. The conclusion of the experts was clear – Don't close the door on experiments in the future, with the condition that a commission of bioethics experts watches monitors the work.

But since then, almost nothing. The composition of this commission has been delayed and no objectives have been set. Even a short-term is doubtful. Therapeutic research and cloning are extremely significant subjects in Poland. The weight of the Catholic Church in Polish society is large and those opposing embryonic research are in a majority. Poland, along with Portugal, Ireland, and Malta are the countries still prohibiting voluntary interruption of pregnancy. There is an ongoing debate around in vitro fertilization with many remaining opposed to this practice, although the law authorizing it has existed for over 18 years and about 4,000 IVF are carried out each year.

Sources: March 2008

Electronic Bulletin, March 4, 2008 - Embassy of France in Poland and PAP (Polish Agency of Press).

14.4 Poland signs a scientific cooperation agreement with Germany

Barbara Kudrycka, Polish Minister for science, and Anette Schavan, her German counterpart, jointly announced in Leipzig at the end of April that the first Polish-German forum on sciences that the two countries will increase their scientific cooperation. According to Mrs. Schavan, this collaboration will be "an important contribution to the growth of the two countries, thus for Europe".

The joint research projects would include the fields of energy, environmental protection, and social sciences. They will be financed by the Polish-German Foundation of Sciences, chaired by Rita Suessmuth, former president of the Bundestag. The Polish and German governments promised to help the foundation up to a total of respectively 5 and 50 million Euros, respectively.

*Sources: June 2008
Electronic Bulletin, June 12, 2008*

14.5 The CEA (France) in visit in Warsaw (Poland)

A delegation of the CEA (the French Commissariat à l'Energie atomique), led by Jean-Pierre Le Roux, Deputy General Administrator, traveled to Warsaw in May to encourage a partnership with Poland in the field of the nuclear research.

Prospects for cooperation between the two countries in preparing for the future Polish nuclear program are positive, as are opportunities for scientific research. The official engagement of Poland in the construction of a nuclear reactor on its territory by 2020 is a sign of opening to nuclear power in Poland.

The delegation of the CEA met with the Ministry of Economy and representatives of the Polish nuclear engineering organization. The scientific relationship between the CEA and the Polish academy of Sciences (PAN) was formalized during the meetings. The PAN constitutes an essential partner in the field of the nuclear physics, as well as in controlled fusion, the nanosciences, and life sciences.

*Sources: June 2008
Electronic Bulletin, June 12, 2008*

14.6 Donald Tusk presents measurements for the reform of l' university and of research (Poland)

More innovation, competitiveness, and internationalization. The formula will remain the same, as recent declarations of Donald Tusk, Polish Prime Minister, and Barbara Kudrycka, Polish Minister of Higher Education and Science, preach continuity with the previous government regarding the strategic orientation of research and higher education.

Among the announced modifications is the reform university certification for teaching. Only if this is widely accepted among academics will it be possible to increase the state expenditure for research and teaching to 2% of the GDP by 2013. "Our ambition is not only to keep the most talented Polish academics in the country, but also to attract young foreign researchers" says Donald Tusk, who also wishes to re-evaluate the professors' wages.

Universities will be selected through competitive processes as centers of excellence. They will have to prove their excellence with regard to research and teaching and after having done so will they be encouraged to create partnerships with the private sector.

The changes will also affect the Polish Academy of Sciences, which will have to reorganize its system of management and reform some of its institutions. The academics and the researchers are generally favorable to the governmental proposals even though the specifics of the reform are yet to be detailed.

*Sources: June 2008
Electronic Bulletin, June 12, 2008*

14.7 Poland: Strong Science Budget in 2009

The budget for science in Poland could increase by 29% in 2009. The Council of Ministers joined together on December 2, 2008 and approved the proposal of Barbara Kudrycka, the Minister for Science and Higher Education, to increase the research and development budget to make Poland more competitive with other developed countries. Kudrycka proposed an increase of 1.4 billion zlotys (370 million Euros) in the science budget, which would bring it to 5.6 billion zlotys (1.5 billion Euros).

*Sources: December 2008
Electronic Bulletin, December 18, 2008*

14.8 The Polish "Nobel" prizes Reward Scientific Excellence

Modeled on their famous namesake, the Polish "Nobel" represent the most prestigious scientific prizes awarded in Poland. Each year for more than 25 years, 4 prizes have rewarded to researchers in social sciences, technical sciences, natural sciences, and life sciences. Each prize winner receives a sum of 200,000 zlotys (~ 55,000 Euros). This year the Polish Foundation of Sciences (SIDE) awarded the following:

- Stanislaw Mossakowski (born in 1937) Institute of Art at the SIDE, in Social Sciences, for his monograph on the structure of the Renaissance, using as an example the vault of Zygmunt III located at Cracow. This monograph is regarded as a basis of research on the Europe Renaissance.
- Andrzej Jajszczyk (born in 1952) Academy of the Mines of Cracow, in Social Sciences. An expert at the European Commission in the field of telecommunications, this prize rewards his work on the construction of the new generation Internet, which has led to references to the Jajszczyk algorithm.
- Ryszard Horodecki (born in 1943) University of Gdansk Institute of Theoretical Physics and Astrophysics, Technical Sciences. Ryszard Horodecki is at the frontier of a theoretical development of quantum data processing, considered as a new discipline. The results of his work were published in the "*Reviews of Modern Physics*".
- Jacek Oleksyn (born in 1953) SIDE Institute of Dendrology, Life Sciences. A Botanist responsible for experimental botany at SIDE, his work on the connection between the metabolism of plants and their geographic origin was published in *Nature*.

Sources: *December 2008*

Electronic Bulletin, December 18, 2008

14.9 Poland, the 28th Member of International Agency of Energy

At the end of September 2008 Poland became the 28th member of the International Agency of Energy (IEA). The IEA is an international organization founded in 1974 following the first oil crisis. Its goal is to facilitate the coordination of the energy policies of the member States. The IEA studies in detail all the energy sectors (except the field of nuclear fission), analyzed by the International Agency of Atomic Energy (IAEA).

Sources: *December 2008*

Electronic Bulletin, December 18, 2008

15 Portugal

15.1 Technology - High Definition at 200 km/h (Portugal)

Watching television at 200 km/h (120 mph) with a quality four times higher than currently available will become possible as of next April. This prospect is a result of work by a group of European and Israeli researchers led by Telecommunication Institute of Aveiro (IT). Working on a project financed by the European Commission, SUIT (Scalable, Ultra-Fast and Interoperable Interactive Television), this team developed a mobile telecommunication platform for moving vehicles by combining two wireless networks.

Ten partners are taking part in this project which joins together research centers, universities and industrialists from Belgium, Spain, France, Great Britain, Portugal, Germany and Israel and which aims at exploiting the possibilities offered by networks of earth digital television and WiMAX (Worldwide Interoperability for Microwave Access) by combining these two systems. The aim is to obtain images in high definition at a maximum speed of 200km/h. As explained by António Navarro, the coordinator of this project and a researcher at IT, "this platform of telecommunications for mobile terminals is compatible with devices which we can combine radio frequencies using two reception antennas (for WiMAX and for UHF, High frequency) and also the band-width that makes it possible to gain high definition images".

In addition to providing television images four times superior to those currently available, this project also allows access to Internet and video on request service services currently impossible to access because of technological limitations. The first results obtained between July and November 2007 at IT, the laboratory leader of the project, are very encouraging and researchers predict that the high definition transmission will become a reality as of April 2008.

Sources: March 2008

Electronic Bulletin, February 26, 2008 and António Navarro, Telecommunications Institute/Aveiro University, 3810-193 Aveiro, Portugal - Phone: +351 234 377 900, Fax: +351 234 377 901 - Email: navarro@av.it.pt

Telecommunication Institute of Aveiro: <http://www.it.pt/>

15.2 ESA Research Station Established in the Azores (Portugal)

A research station of satellites of the European Space Agency (ESA) located in the Azores Island Santa Maria was inaugurated last January. This base will have a special role in the initial follow-up of launchings of the rocket "Ariane 5". Located at an altitude of 200 meters on the Mount of Flowers and integrated into the world network, this station will be the first of ESTRACK network, world network of stations on the ground being in contact with the satellites in orbits and the centers of control of operations (ESOC) of ESA. The ESTRACK role is to provide data on the trajectories adopted by the spacecraft throughout the missions such as their speeds. In addition, it is the first ESA station able to follow a flight during all the phase of propulsion. It is anticipated that ARIANE will pass above the station at a speed of 28.000 km/h.

The first launch will be followed by the Santa Maria station should take place at the beginning of 2008 when Jules Verne, the first ATV (Automated Transfer Vehicule) will be sent towards the international space station from the site of Kourou in French Guiana. In the future, this station will be used to receive telemetric data from other rockets as well as to send data, as that is envisaged in the CleanSeaNet project, of the European Agency of Maritime Safety whose mission is to detect oil pollution by satellite.

Sources: March 2008

Electronic Bulletin, February 26, 2008 and

ESTRACK Program: http://www.esa.int/esaMI/Operations/SEM8YCSMTWE_0.html (English site)

15.3 Environment - Spanish Center for Renewable Energy (Portugal)

Encouraged by an important partnership in the nanotechnology sector with creation of the Iberian the Institute of Nanotechnology, Portugal and Spain have joined in an effort on renewable energies. The chief of the Spanish government closed the XXIII Summit of Luso-Spanish by announcing the creation of an Iberian Research Center for Renewable Energy in the Estremadura region. A Spanish initiative, the seat of the future institution will be located in Badajoz, city where several companies in the renewable energy sector are already concentrated and which profits from favorable conditions to carry out projects on solar energy.

The XXIII Summit granted a broad place to the energy questions and also allowed to brush through the operation of the future Iberian market of the gas (Mibgás), which follows the electricity (Mibel). All the opportunities will be studied in order to diversify the sources in the European context, with the possible installation of liquid natural gas terminals, which would represent an alternative

Sources: March 2008

Electronic Bulletin, February 26, 2008 and:

Mibgás : <http://www.erse.pt/vpt/entrada/mercado/mibgas/>

Mibel: <http://www.edp.pt/EDPI/Internet/EN/Group/AboutEDP/HotIssues/>

15.4 Portugal is equipped with a submarine that goes down to 6,000 meters

Portugal joined the small group of the owners of submarines capable of great depths and will now be able to explore the bottom of its exclusive economic zone (EEZ). On February 21, the Portuguese Minister for Defense, Nuno Severiano Teixeira, signed a resolution authorizing the purchase of the equipment built by the Norwegian company, Argus Remote System. A scientific panel appointed by the Ministry for Defense

recommended the purchase for three million Euros. The aim of this scientific group is to prove that the continental plateau of the Portuguese territory extends beyond the 200 mile limit of the EEZ. If such is the case, Portugal will be able to extend the territory as provided for in the United Nations Law of the Sea. Within the perimeter of their EEZ, countries may exploit resources in the ocean, whereas on the continental plateau, they also have jurisdiction over the resources of the sea bed and the under the seabed, such as oil, gas, metals, or biologic and genetic materials. The scientists have until May 13th, 2009 to provide evidence of this extension of the Portuguese continental plateau. At this date, the file based on this scientific documentation will be given to the UN Commission on Limits of the Continental Plateau created by the international law of the sea.

The sea is an area of investigation that is of great interest in Portugal. When the French Prime Minister, Francois Fillon, visited Lisbon on February 22, several agreements were signed between France and Portugal, including a strengthening of cooperation in Marine Science and Technologies.

Sources: April 2008

Argus Remote System : <http://www.argus-rs.no/> and Commission for the continental plateau (English) : http://www.un.org/Depts/los/clcs_new/clcs_home.htm and Bulletin Electronic, April 3, 2008

15.5 Cristina Rodrigues receives the Era-Net European Prize in Paris (Portugal)

As part of the "Genomes 2008", conference held in Paris on April 11, the Portuguese researcher Cristina Rias-Rodrigues received a European Prize for her doctoral thesis in cellular biology which made it possible to identify important factors of the host that allow for the infection of liver cells liver by the malaria parasite.

Rias-Rodrigues received the "ERA-Net PathoGenoMics Award", which was created in 2004 by 15 organizations (Germany, Austria, Spain, Finland, France, Hungary, Israel, Latvia, Portugal and Slovenia) to promote European Genomic Research on pathogenic micro-organisms. It is part of the 70 Era-Net European networks whose objective is to reduce the fragmentation of research in Europe and to support the bonds of scientific cooperation on a national or regional level. It is one of the instruments of financing of the European Commission introduced in the 6th framework program.

The award, worth 2,000 Euros, is awarded by a jury of three scientists working on the pathogenic micro-organisms and honors annually the three best doctoral theses published in Europe.

Sources: May 2008

Era-NET PathoGenoMics Award PhD: <http://www.pathogenomics-era.net>

- Genomes 2008 Conference : http://www.pasteur.fr/infosci/conf/sb/genomes_2008/ Electronic Bulletin, May 9, 2008

16 Romania

16.1 Romania Joins European "Extreme Light Infrastructure" Project

Romania has expressed a great interest to host, either independently or in a partnership, the Extreme Light Infrastructure (ELI) Project. The Romanian candidature was submitted in September 2008 and under either an independent or joint project, Romania expects a privileged collaboration with France by using materials and human resources from the three Magurele scientific complex – the Laser Institute, the Plasma and Radiation Institute, or the Nuclear Physics Institute.

Collaboration in the field of the extreme light revolves around two projects of which G. Mourou, Director of the Laboratory of Applied Optics of the ENSTA and professor at the Polytechnic School in Palaiseau, is the coordinator. The first, the Institute of the Extreme Light (ILE), is a national scale project with a budget of 30 million Euros. It requires a collaborative development between researchers and industrialists and will be located at Saclay. The second project, the Extreme Light Infrastructure (ELI), is sponsored by the

European Commission within the framework of the 7th program of research and development (PCRD), and comes to a total cost of approximately 400 million Euros. Thirteen countries of the European Union are part of ELI and five countries are bidding to locate it within their borders -- France, Romania, Hungary, Greece and the Czech Republic.

ELI would bring together top European laser specialists to manufacture a new instrument with an intensity of $1026\text{W}/\text{cm}^2$. At the center of the project, an Exawatt laser, approximately a thousand times more powerful than the Megajoule laser now being developed in France, or the one at the National Ignition Facility (NIF) in the United States.

Applications of "extreme light" will be particularly numerous in the fields of health, biology, materials science, radiography, and radiotherapy. Another very promising application will be to replace the gigantic particle accelerators by systems 10,000 times smaller.

Sources: December 2008

Electronic Bulletin, December 15, 2008

[1] Institute of the Lasers, Plasma and Radiation - INFLPR : <http://www.inflpr.ro> (in English)

[2] Institute of Materials - INFIM : <http://www.infim.ro> (in English and Romanian)

[3] Institute of Nuclear Physics - IFIN : <http://www.nipne.ro> (in English)

<http://www.extreme-light-infrastructure.eu>

<http://www.mct.ro/>

17 Russia

17.1 Russia to Buy One of the World's Most Powerful Computers

The State University of Moscow (MGU) bought one of the most powerful computers in the world, announced its manufacturer, IBM. Sold for nearly five million dollars (3.4 million Euros), the Blue Gene design supercomputer, is able to carry out 27,800 billion operations per second for research in nanotechnology, modeling or other scientific applications, declared a spokesman of the group. "*This agreement with IBM opens a new era for data-processing calculation in Russia*", enthused Viktor Sadovnichiy, vice-chancellor of the university, in an official statement.

The Blue Gene supercomputer, the world's most powerful, belongs to the American Department of Energy and is used by the Lawrence Livermore national laboratory to model the ageing stockpile of American nuclear weapons and to prevent the possible problems.

IBM declared that the computer bought by the Muscovite university was one of the fifty most powerful in the world, that the American authorities had given their agreement for the export license, and that the machine would be used purely for scientific research. It should be operational by April. The supercomputer, which takes the form of two large cabinets like refrigerators, operates 2,600 times faster than most powerful domestic PC.

Sources: January 2008

17.2 Information technologies and Internet: Russia in good position

According to a study of the researchers of London Business School, Russia is in a good position to develop its communication and information technologies. In parallel, the survey firm eMarketer reports that Russian net surfers will represent the second largest European market by the end of the year 2008. Russia is better than many countries in measures of level of training, access to the internet, and use of mobile technologies in the business world. In these areas it tops India, China, Malaysia, Brazil and many other countries experiencing rapid development. Russian's performance is at a level comparable to countries considered to have innovating economies, such as Finland and the United Kingdom. This assessment also states that Russia has an important human capital resource, which can be important in the transition of a country to an innovating model of economic development. Indeed, an economy which

effectively uses information technologies and communication has a large development potential and appears to be a magnet for investors.

With 40.3 million users of the Web (*), Russia will be second only to Germany in the European market by the end of 2008. Today's 40.3 million Russian net surfers account for only 28.6% of the population of the country, however, leaving lots of room for future growth.

*The company eMarketer regards as a user of Internet any person connecting at least once per month to it, whatever the point of connection.

Sources: April 2008

Bulletin Electronic, April 1, 2008 and

Agency for the Science informations Izvestia: <http://www.inauka.ru> -

Agency for the Information for the Norway Region: <http://nr2.ru/>

Emarketer Company: <http://www.emarketer.com>

18 Slovakia

18.1 A national agency for the research and the development (Slovakia)

Agentura Na Podporu Vyskumu a Vyvoja: This agency, in existence since 2005, is responsible for the support of R&D in Slovakia. Its principal objectives are the financial support for research and development and the promotion of science. The agency depends financially on the State which allocates a budget for the financing of projects selected. It selects projects completely independently. The president of the Agency President provides the general orientation of the Agency and an independent Director implements the program. Since its creation, the budget of the Agency has continually increased and was 25 M Euros in 2007 and is expected to grow to 30 M Euros in 2008.

The financial support for the Agency is done through calls for general projects, programs geared toward specific areas, and calls for projects within the framework of the international cooperation. Within the framework of the global projects, 6 specialties are in place (with support from independent external experts) in the following fields: -

- Natural science
- Technology
- Medicine
- Agriculture
- Social science
- Human science

With regard to directed programs, a specific commission exists for each one at the time of their establishment. The definite priorities are:

- Cooperation between research and businesses for technology transfer
- Support for small enterprises in areas of innovation and collaboration with research centers
- Creation of centers of excellence
- Assistance with the preparation of projects within FP 7
-

To further promote science, the Agency also has programs to finance young researchers and doctoral students. Additional information can be found at: <http://www.apvv.sk>

Source: February 2008

Electronic Bulletin February 13, 2008

18.2 Status of Links Among Competitiveness, Innovation R&D and the Private Sector in Slovakia

In Slovakia, according to the Framework of Reference for the National Strategy 2007-2013 signed on June 29, 2007, improving competitiveness in the private sector (services and manufacturing) suffers from:

- Lack of financing available for innovation,

- Insufficient support for technology transfer,
- Insufficient demand for innovation and the introduction of advanced technologies into the business sector,
- Insufficient connections between universities, research and development institutions and the private sector (incubators, centers of innovation, networks and scientific and technological centers),
- Unsatisfactory support for industrial research R&D infrastructure

All in all, Slovakia is lagging behind the 25 members States of the EU on a number of indicators of research development and innovation. The innovation strategy approved by the government in March 2007 provides a policy of long-term support for the development of innovation and economic growth, the growth of competitiveness, productivity, and improvement in value added [manufacturing] and an increase in the technological level in the industrial and service sectors. In recent years, the former bond between companies, universities, institutions, and technology centers has weakened. It is difficult for the industrial sector (especially for small enterprises) to cooperate with the research sector, especially with the lack of qualified people and adequate infrastructure, and to benefit from the results of research and development activities.

It is obvious that research, development, and innovation play a key role in the rate and quality of modernizing production and the transformation to a knowledge economy. But measures allowing for the evaluation of current conditions are not very good compared to other EC countries. The report criticizes the fact that until now there has been no data to support the creation of research and development centers.

Scientific research capacity is concentrated in the western part of Slovakia, in particular in Bratislava - Trnava - Piestany and Trencin - Ilava - Prievidza - Zilina. Almost half of the R&D sector is in the Bratislava area. Moreover, the ten leading research universities and colleges are all located in Bratislava. Other places of concentration of research are Banska Bystrica - Svolen, Nitra, Kosice, Poprad. The south and the east regions lack both industrial research infrastructure and public sector research centers (Slovak Academy of Sciences, universities). The problem of inadequate and obsolete research infrastructure is common throughout Slovakia.

These shortfalls in all sectors of research, development, innovation, and competitiveness noted in the introduction of the National Strategic Plan for 2007-2013 allow the Slovak government to envision a strategy for funding improvements in each of these areas. Thus, over the period 2007-2013 there will be specific funds for the development of the knowledge economy and more specifically for R&D, university research infrastructure, and the support of competitiveness and innovation in the private sector. Operational programs for research and development (833,000,000 Euros) and for competitiveness and economic growth (772,000,000 euros) are in place.

Source: February 2008

Electronic Bulletin February 13, 2008

18.3 CEIT - Central Europe Institute of Technology (Slovakia)

The CEIT was officially founded by the Slovak Center of Productivity (SLPC) within the University of Zilina and began operations in 2004. It is a center of excellence in the field of research, development, technological progress, support for the creation of entrepreneurial innovation, knowledge economy, and development of productivity and competitiveness. The CEIT is an open organization that encourages cooperation and collaboration with all relevant institutions regarding questions of development in Central Europe.

The objectives of the CEIT are to be part of the Institute European of Technologies (EIT - European Institute of Technology) and to be integrated into the European Research Area (ERA). The principal goal of CEIT is to establish the link between theoretical knowledge in universities and development in industries based on a model of research and development in private/public partnerships. The CEIT

directs its principal activities towards the fields of automotive engineering and electronics, focusing on the following areas:

- Growth of competitiveness and the potential of small and medium enterprises
- Diversification of basic industry and products
- Support for development and implementation of innovation
- Counteracting the brain drain
- Consulting for technological innovation of the products
- Transfer of academic discoveries to business
- Improving the quality of life and lowering unemployment in Central Europe
- Support for the economic growth of the EU.

Skills:

- Virtual design, modeling, and product testing
- Reverse engineering, rapid prototyping, fast creation of tools
- Biomechanics and bio-engineering
- Nanotechnologies
- Modeling and virtual simulation of the systems of production and assembly
- Robotics
- Products and intelligent systems of production

Source: February 2008

Internet site of the CEIT [<http://www.ceit.eu.sk/>] offers links towards the sites of the SLCP

[<http://www.slcp.sk/>], the University of Zilina and the Institute of Competitiveness and Innovations (Uka).

Email : ceit@ceit.eu.sk

Electronic Bulletin February 13, 2008

18.4 EU Structural Support for Centers of Excellence (Slovakia)

In a story devoted to Slovakian science and research in the economic weekly magazine *Trend*, a short article reports on projects relating to the use of European structural support to be provided to Slovakia over the period 2007-2013.

It stresses that if one measure the Slovakian research and development activity by the number of construction projects, the country ranks among the best.

European structural support will be used to create centers of excellence for research and development. The funds will go towards equipment for laboratories and also to support internationally recognized research teams.

The number of centers of excellence that will be created remains uncertain. The Minister of Education, Jan Mikolaj, announced at the public conference that the number of centers created could reach several dozens but depends on the number of relevant projects presented. Mr. Jaroslav Pastorek of the Institute of Virology of the Slovakian Academy of Sciences estimates that this number will probably be nearer to ten.

According to an unofficial source, a center could receive up to 50 million Slovak crowns (a little less than 1.7 million euro). Thus each center would receive some support, but not enough according to the president of the Slovak organization for the Research and the Development, M. Stanislav Sipko. Some equipment such as microscopes are very expensive. A center of excellence such as the Slovak Ion (center of nanotechnologies ions and plasma) would need a billion crowns. The creation of this project in Trnava in cooperation with the STU should be financed by the operational program of research and development.

Sources: July 2008

Electronic Bulletin, July 16, 2008

<http://english.etrend.sk/>

18.5 APVV, Agency for the Support of Research and Development (Slovakia)

APVV, Agency for Research and Development, established in 2007, is expected by 2010, to have in place a special program for the creation and operation of centers of excellence for research.

The goal is to support research activities fully integrated in the system of training and job creation and for post-doctorates and researchers less than 35 years old. The program will facilitate the participation of the best institutions in cooperative projects financed by the European Union.

The importance given to employment and training of young researchers shows the desire of Slovakia to develop a qualified workforce in research and development. A shortage of qualified personnel, especially in the technical disciplines, was recorded in the industry. A call for proposals is scheduled every year until 2010.

The principal evaluation criteria are the intellectual value of the project, the expected level of international involvement, and the social benefits and direct economic impacts expected from each project.

Sources: July 2008

Electronic Bulletin, July 16, 2008

<http://www.apvv.sk>

18.6 Enterprise Europe Network (Slovakia)

Launched in February 2008, this new initiative of the European Commission - Enterprise Europe Network offers a large range of services and support to businesses involved in innovation and research. This new network is built on the experience and will integrate the activities of the Center Euro Info (EIC), the Innovation Relay Centers (IRC) and the support services to small companies set up within the framework of the 7th Framework Programme. This Enterprise Europe Network gathers 500 organizations with approximately 4000 professionals and the activities in forty countries.

Sources: July 2008

Electronic Bulletin, July 16, 2008

<http://www.enterprise-europe-network.sk/index.php?lang=en>

18.7 The University of Zilina: a Dynamic Technology University (Slovakia)

The University of Zilina is the only university in northwest Slovakia and remains unique thanks to its tradition of formation in the fields of transportation and communications.

It was first established in Prague in 1953 as the College of Railroads. In 1959, it became the University of Transportation and was re-located to Zilina. With the development of communication technologies, the university adopted this as one of its specialties and took the name of "University of Zilina" in 1996. The trainings now cover information sciences and telecommunications, as well as mechanics, civil engineering, economics and management.

During its history, the University of Zilina wove close cooperative links cooperation with industrial players in transportation and telecommunication, as well as with public institutions such as regional and national private companies. The goal of the university is to contribute to the technological development and operation of the systems, networks, and transportation and telecommunication services and to play a crucial role in the economic and social development of Slovakia and, on a larger scale, of Europe.

Since 1996, the university has focused on increasing its share of the various research and mobility programs established in the European Union, such as the Erasmus, Socrates and Tempus partnerships. The current trend for the university is the development of continuing education and remote training programs with the aim of meeting the changing requirements of the industrial and service sectors. It closely track progress in scientific and technological fields and integrates them into its teaching models.

Sources: November 2008

Electronic Bulletin, November 4, 2008

- rektor@rekt.utc.sk, Prof. Jan Bujnak, President of the University of Zilina
- <http://www.uniza.sk/menu/inc.asp?ver=EN>
- http://www.utc.sk/projekty/zahr/index_en.html

19 Slovenia

19.1 Slonano 2007: 6th international conference on the nanotechnologies (Slovenia)

Each year since 2002, the Institute Jozef Stefan organizes the SLONANO conference. Although it was only attracting Slovenian researchers at the, it now has an international scale and is a source of distinction among its close neighbor countries. This year, it joined together more than 80 participants from Slovenia, Austria, France, Croatia, Italy, Hungary, Germany, the Netherlands, Poland, Switzerland and Russia. A record number of 54 lecturers came to present the results of their scientific research. Paul McGuinness, Anton Ramsak and Dragan Mihailovic were the organizers of the 2007 conference. The topics primarily related to nano-microscopy, the theory of nanoscopic system, the nanopharmacy and various fields of the nanotechnology. The program and the summaries of the conferences [1] and its video presentation [2] are available at the links below.

The following is the list of the principal lecturers:

- Peter Laggner of Austrian Academy of Sciences who spoke about the new laboratory equipment for the analysis of nanoscopic systems;
- In the field of the theory, Erio Tossati of Trieste (SISSA) discussed his latest results concerning friction in nanoscale compounds;
- Janez Bonca (Faculty of Mathematics and Physics of the University of Ljubljana/Institut Jozef Stefan) presented results related to the conduction and unusual qualities of assembled quantum points.
- In the field of the nanopharmacy: - Julijana Kristl of the School of Pharmacy, presented research addressing whether nanoscale particles in a drug can better invade the cells;
- Milan Ceh discussed a general finding that improves the field of microscopy of atomic resolution;
- Andreja Gajovic, Institute Ruder Boskovic of Zagreb, presented research on new solar cells containing of nanostructures within silicon layer;
- Erik Zupancic from the Institute Jozef Stefan demonstrated writing with an atomic resolution;
- Wolfgang Waldhauser de Leoben (Austria) presented the activities in the field of engineering of the nanosurfaces;
- Loredana Casalis of Trieste (ELETTRA) presented his report on DNA research using an atomic force microscope.
- Gorazd Drazic discussed analytical electronic microscopy as a fundamental tool in research on nanostructure of materials.

The 2007 conference was one of the highlights in this field. It was also closely linked to the international conference of the fundamentals of nanoelectronics, which took place in Portoroz from September 2-7, 2007 [3], which focused on phenomena related to the physics of the electrons in nanostructures, particularly from a theoretical point of view.

Sources: March 2008

Electronic Bulletin, February 26, 2008 and:

[1] <http://nano.ijs.si/SLONANO2007>

[2] http://videlectures.net/slono05_ljubljana/

[3] <http://www-f1.ijs.si/portoroz07>

19.2 Tehnica Zeleznika – Gold Medal of innovation (Slovenia)

Lately, one hears much in Slovenia about collaboration and synergy with research institutes to speed up development of the private sector. According to Lojze Demsar, director of Tehnica Zeleznika, that does not inevitably guarantee success. Demcar directs a Slovenian company which manufactures very

powerful laboratory centrifuges. During the 2nd forum on innovation, which took place in Ljubljana January 17-18 and which presented the 40 best innovations of Slovenian companies, the company presented its most recent product, the universal laboratory centrifuge, Centric 200R.

The technical innovation in the cooling centrifuge Centric 200R lies in its ability to support very demanding research processes that are sensitive to samples warming during centrifugation. This innovative apparatus is especially useful in fields of medicine and pharmacology for carrying out research on diseases and developing drugs that focus on genetic engineering and biotechnology.

After the disappearance of the Yugoslav market, the company switched from the manufacture of measuring instruments to the development of laboratory equipment, which today constitutes nearly 90% of their production. The majority of these products (centrifuges, agitators, mixers, incubators, constant-temperature water-bath) are sold in the United States, the EU and Jordan. The secret of their success, according to the director of the company, lies in their ability to network.

Sources: March 2008

Electronic Bulletin, February 26, 2008 and Tehnica Zeleznika : <http://www.tehnica.si> -

Email : info@tehnica.si Phone: +386 45117 500 - Fax : +386 45117 501

Slovanian Forum for the Innovation : Institut Hevrek - Adresse : Lepi pot 6, 1000 Ljubljana - Email : info@sfi.si - Phone : +386 1 2513727 - Fax : +386 152 2 487

19.3 Young researchers in Slovenia

One of the greatest merits attributed to Slovenian science is undoubtedly its statutory program to assist its young researchers. Slovenia currently counts close to a thousand of young researchers and a large majority are members of the Association of Young Researchers (DMRS) founded 12 years ago. The principal aim of the Association is to defend the quality of the doctoral studies, to promote a high level of research activity and to collaborate in the preparation of the regulations regarding doctoral studies. Among its greatest success, carried out with the help of the Association of the Students of the University of Ljubljana (SOU), is the initiative to build a home for Ljubljana doctorates.

Attainment of young researcher status begins with a call issued by faculty applicants. The admission of candidates requires marks in university courses of at least 8/10; successful collaboration in their research field as a graduate student; and attainment of prizes or other recognition as a graduate student

For the past two years, the Agency for Research selects the tutors who in turn select the young researchers. They are expected to choose the best candidates, but in reality, they tend to choose those with whom they have collaborated. According to the president of the Association this selection process, paradoxically, may not result in identifying the best candidates. The number of vacant posts is determined by the needs of each faculty.

Sources: April 2008

Anze Zupanic – Slovenian Association for Young Researchers : DMRS - <http://www.drustvo-dmrs.si/> -

email : dmrs@drustvo-dmrs.si and

Bulletin Electronic, April 7, 2008

20 Spain

20.1 The Spanish sun leaves to conquer the United States

On March 1st, 2008 the Spanish company Acciona inaugurated one of the most important thermal plants of the world, Nevada Solar One, 50 km south of Las Vegas in Boulder City. No fewer than 190 rows of mirrors flood the desert on a little more than one kilometer. This enormous power station has functioned since July 2007, but excessively high temperatures in the area delayed the inauguration until this month.

The power station will produce 64 MW of electricity annually which will be distributed to more than 14,000 households. It involves an investment of 220 million Euros, an enormous sum that Acciona company declares will be profitable in the long term since it already envisages building additional power stations of this type by 2009. Acciona is a shining example of a Spanish company which has understood perfectly that technology and ecology are not antithetic. Thanks to this power station, 134,000 tons of CO₂ will be saved each year. The investment in such equipment is now necessary, and Acciona eagerly awaits the outcome of the next American election in order to be able to give its final impulse with such initiatives.

Sources: April 2008

Bulletin Electronic, April 8, 2008

20.2 ESOF 2008 – Barcelona European Capital of Science (Spain)

From July 18-22, Barcelona hosted the 4th annual EuroScience Open Forum (ESOF 2008), the principal meeting of scientists, contractors, and political actors in the European research community. The slogan of this year's meeting was "Science for has better life." The event, which brought together more than 4,000 scientists and 20,000 non-specialist visitors, could count on the presence of several Nobel Prizes winners and approached topics such as stem cells, climate change, and nutrition. The weekend provided the general public an opportunity to discover the many stands of scientific popularization. Among the exhibitors, one could meet representatives from international projects such as the ITER Project: Nuclear Fusion, a New Source of Electricity.

An outcome of cooperation between the Federation of Russia, the Republic of Korea, the Popular Republic of China, India, Japan, the United States and the European Union, ITER will be the first experimental nuclear reactor not dedicated to the industrial electricity production. It will be able to generate 500 million watts of fusion energy for up to ten minutes. ITER is in construction on the site of Cadarache in France and is expected to begin operations in 2016.

Each participating ITER country is committed to build a certain number of parts for the project. For that, headquarters were created in each country to centralize the decisions and organization of the construction of these parts. The European participation HQ (represented by only one country) has been located in Barcelona since the beginning of 2008

ESOF is a biannual demonstration, thus go in 2010 in Turin then in 2012 in Dublin.

Sources: August 2008

Electronic Bulletin, August 14, 2008

<http://www.esof2008.org/>

<http://www.iter.org/>

20.3 Spain and Advanced Grants – Could do Better, but Making Progress

After the EU Young Researcher Starting Grants launched at the beginning of the year, the European Research Council (ERC) announces the results of the first 225 Advanced Grants projects awarded from over 22,000 applications submitted. Each winner will receive between 2 and 2.5 million Euros over 5 years.

While Spain did very well in the Starting Grants competition, particularly in Catalonia, the results of the competition for experienced researchers are more modest. Spain, with 11 projects accepted, placed 9th overall, behind the first place United Kingdom, (47 projects) and France, number two (30 projects). It ranked behind other "small" countries such as Switzerland, Netherlands, Israel or Sweden.

Specifically, Spain was awarded two projects in physics and engineering, four in social sciences, and five in biomedicine (the interdisciplinary results in research are to come). Madrid and Catalonia share the honors with five and six projects respectively (for the latter, four in Barcelona, one in Tarragona, and one in Lleida). If one looks only at biomedicine, Spain is definitely performing better, ranking fifth across Europe.

Previously, we noted Spain's ability to attract foreign researchers or Spanish researchers returning from abroad. New winners of the ERC offer additional proof. Of the seven projects in the natural sciences, four are directed by foreigners and the three others by Spanish scientists who decided to return to Spain. In Catalan, five of the six leaders of projects are researchers of the ICREA (Institució Catalana de Recerca i Estudis Avançats). This foundation was created six years ago and depends mainly on support from the local government. Its goal is to finance talented researchers on the 3R principle -- retain, repatriate, recruit. One hundred and fifty five researchers are currently members of the ICREA; and two-thirds are foreigners (136 in senior tenure track contracts and 19 under 5 years temporary contracts).

Recently, Nature magazine pointed to the inflexibility of the academic system in recruitment and recommended that genuine financial incentives for research be offered by the government in addition to structural reforms that would bring transparency and a simpler administration to the CSIC (Spanish equivalent of the French CNRS).

In its July issue, Nature devoted two pages to a positive story on the Catalan research institutes, private structures supported by public funds which have the latitude to recruit the best researchers (the Research in Catalonia published a report in February which outlines in detail these institutes) and whose model is taken by the Basque region (the Gune Centers for example) and also by Madrid (Central Nacional de Investigaciones Oncológicas) and Valencia (Central of Investigación Príncipe Felipe).

With these innovating structures, Spain in general, the areas of Madrid and Catalonia in particular, are becoming areas that will be competitive in the European scientific arena.

Sources: November 2008

Electronic Bulletin, November 24, 2008-11-25

21 Switzerland

21.1 Swiss Enact Project 2008-2011

A bill related to encouraging research and innovation for the years 2008-2011, was adopted by the Swiss Parliament last autumn. The federal budget for this activity represents 11.9 billion Euros, an increase of 19% compared to the period 2004-2007 (10 billion euros), and an annual growth of 4.75%.

All in all, the federal budget for research, including allotments for the European Space Agency and CERN, will reach approximately 13.2 billion euros for the period 2008-2011. This represents 3.3 billion Euros per annum accounting for 1.13% of the GDP.

The strategic priorities stated in the bill and prioritized by the Swiss Parliament are:

- to reinforce the Switzerland as a laboratory of ideas;
- to ensure the scientific advances;
- to strengthen the interface between research and industry;
- to use the European multilateral partnerships and a certain selective number of bilateral partnerships to gain access to strategic research networks;

The international cooperation budget for the period 2008-2011, the will be approximately 1.7 billion Euros, or nearly 13% of the national total.

It is noted that the bilateral cooperation of Switzerland with the European countries is reduced, Switzerland having a quasi-exclusive preference for multilateral integration. The country-targets are the United States, Japan, Singapore, South Korea, Russia, China, India, Brazil, Chile and South Africa.

Sources: August 2008

Electronic Bulletins, August 12, 2008

Secrétariat d'Etat à l'Education et à la Recherche :

http://www.sbf.admin.ch/htm/themen/grundlagen/bfi_08-11_fr.html

22 Turkey

22.1 Nomination: President of the TUBITAK Elected at EUROHORCs (Turkey)

EUROHORCs is an independent association created into 1992 which gathers the national research agencies such as CNRS in France. This association, in which Turkey has been a member since 2005, became a key actor in European research policy by supporting cooperation between national agencies and by fulfilling the role of advisor to the European Commission. EUROHORCs aims to support the European national research agencies through a common platform of discussion, organizing inter-agency projects, and by reinforcing their influence on European research policy. The current president of the TUBITAK (the Council of the Scientific and Technological Search for Turkey), Professor Nüket Yetis, was elected member of the Management committee of EUROHORCs.

Sources: March 2008

<http://newspot.byegm.gov.tr> - <http://www.eurohorcs.org> and *Electronic Bulletin*, March 11, 2008

22.2 7th Project Program: Calls for European Projects in Progress (Turkey)

Turkey takes an active part in the 7th European Technological Research Outline program and development which finances transnational research projects in priority areas. It is thus a potential partner for any European research project to a eligible for funding under the 7th program. The list of the public calls to proposals is available on Internet at the address: <http://redirectix.bulletins-electroniques.com/rMlfv>. In particular, for the "Cooperation" program, the current calls for proposals in the field of nanotechnology will be closed on March 6 and on April 24, 2008, a call concerning communication and information technologies will end on April 8, 2008, and four calls in the field of transport have as a deadline on May 7, 2008.

Sources: March 2008

<http://cordis.europa.eu/fp7/dc/index.cfm> and *Electronic Bulletin*, March 11, 2008

22.3 TIC: Turkey Ranks 16th in Number of Internet Users

The number of internet users in the world is estimated at 1.3 billion, which accounts for approximately 20% of the world population. The United States is in first place with 211 million users; China, in second place has 137 million. Turkey ranks 16th in term of Internet use, with its 16 million internet users, which represents 21% of the 75 million inhabitants in 2007. According to an OECD report, this number was 3.1% in 2005, an increase of almost 700%. Among these users, 3.2 million have access to fast connection (mainly DSL). This type of access grew almost a third between June 2006 and September 2007. The Middle East, where the total number Internet users multiplied by 9.2 between 2000 and 2007, is the region which shows the greatest growth in this field.

Sources: March 2008

<http://newspot.byegm.gov.tr> - <http://www.internetworldstats.com> -

<http://www.oecd.org/sti/telecoms/perspectives> and *Electronic Bulletin*, March 11, 2008

22.4 Conferences in Turkey

European Workshop on Forest Ecosystems, Istanbul, March 11-13, 2008

A strategic COST (European cooperation in the field of scientific and technical research) workshop entitled "Forest ecosystems in a changing environment: identifying future monitoring and research needs" took place in Istanbul from the 11 to March 13, 2008.

The objective of the workshop consisted in identifying the research needs concerning the monitoring of forest ecosystems related to climatic changes and air pollution.

Three approaches will be developed:

- Effects of the climatic heating on the forest;
- Effects of ozone pollution on forest ecosystems;

- Limiting rates of nitrogen and dynamic models of acidification and eutrophication.

Recommendations will be developed concerning the monitoring and the study of the forest ecosystems, the evaluation of the risks, and the standardization of data collection.

<http://www.costforest2008.org/>

International organization of the Black Sea, Conference on Environmental Protection, Istanbul, March 18-20, 2008

The international Organization of Black Sea Economic Cooperation (BSEC) organized in Istanbul from the 18 to March 20 the second workshop on environmental protection in the area. Created in 1992, the BSEC is an international organization, headquartered in Istanbul, consisting of 12 member States (Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldavia, Romania, Russia, Serbia, Turkey and Ukraine), and of many institutions partners and observant states (including France). The purpose is to promote exchanges, peace, stability and prosperity among the member States. The Organization of the Black Sea represents an area with 350 million inhabitants and an economy of 300 billion dollars per annum. It is the second largest producer of oil and natural gas in the world, after the Persian Gulf, and the major energy transportation corridor toward Europe. The first person who reads this and sends an e-mail to the European Office of NSF will be rewarded with a prize in the form of a bottle of French wine. The University of Giresun, located on the littoral of the Black Sea in eastern Turkey, will organize the first Turkish-Russian symposium on the geopolitical perspectives of the Black Sea on March 27 and 28.

Source: BSEC : <http://www.bsec-organization.org>

International Conference on Bio-availability and Bioequivalence, Istanbul, March 17-18, 2008

DESTINY, a research center on technologies and the applications of pharmaceutical sciences of the Hacettepe University of Ankara, organized an international symposium on the questions of regulation, bio-availability (database), and bioequivalence (BE), in Istanbul on March 17-18, 2008.

Created in 1991, DESTINY has the role of developing the activities of research, formation, and information in the fields of pharmacy, biopharmacy and beauty care, in relation to the pharmaceutical industry. This symposium treated technological and legal aspects regarding database/BE from European and American point of view.

Pr. Dr. Yilmaz Capan, Directeur du FATUM, Faculté de Pharmacie, Université Hacettepe, 06100 Ankara (Turquie) - Phone: +90 312 3052080

Sources: March 2008

Electronic Bulletin, March 11, 2008

23 United Kingdom

23.1 Allocations for the UK Science Budget for 2008-2011: Medical Research and Energy are Priorities

John Denham, Minister for Innovation, Universities and Training in the UK, published detailed allocations for the 2008-2011 science budgets. These allocations provide the Research Councils with financial support to implement the strategic priorities stated in their Delivery Plans published in December 2007.

The distribution of the Science Budget highlights the priority given by the British government for research in the fields of medicine and energy, but also in technology transfer and sustainability of the university research infrastructure. Physics found little support in the Science Budget, and thus put in a very difficult financial situation, whereas almost 50% of the total budget goes to medicine.

Source: February 2008

Electronic Bulletin February 15, 2008

23.2 Women in science: the British situation today

The year 2002 saw the publication of three reports ordered by the government and which treated, each in its own way, the under-representation of women in sciences, engineering, and technology. The very low number of women in research and British industry is a crucial problem for a country which chooses to build its economy on knowledge. The concern which began in 1993 has resulted in many studies and initiatives, and since 2005 the Labour government has devoted increasingly large sums to attract young women into sciences and to encourage them to pursue scientific and technical careers. The difficulties, however, are numerous.

Source: February 2008

Electronic Bulletin February 15, 2008

23.3 2008 Sees the Launch of Research Assessment Exercise (UK)

The RAE is the periodic evaluation exercise (every 6 to 7 years) of British research by a commission of experts. It was instituted in 1986 to allocate research funds to institutes of higher education from the Higher Education Funding Councils (HEFC) on the basis of quality of the research, to recruit permanent staff (tenure track) and to develop infrastructure for cutting edge research. Poorly rated or unrated departments receive no support for basic research. The financial assistance for research is provided to each institution with no strings attached, via the HEFC.

A strong component of the evaluation is the number of publications, which are submitted by each evaluated researcher. The evaluation of each file is carried out according to an absolute criteria of excellence. An article is judged on its scientific content, independently of the journal in which it is published. After the RAE of 2001, the rules were significantly modified. Among the criteria for the next fiscal year are the commitment of the departments of universities to offer the equal employment opportunity for, the complete and equitable evaluation of the various types of research (interdisciplinary, applied, or fundamental), and the viability and the vitality of basic research in supporting and assisting the careers of young researchers. The criteria vary depending on the scientific field.

Some figures give an indication of the scope of the evaluation. It encompasses 52,472 researchers and teacher-researchers, 12% more than in 2001 and will be carried out by more than 900 reviewers, of which around fifty are from abroad. Evaluated personnel account for approximately 46% of the total staff in 2,363 departments of 159 higher educational establishments. Recall that each university chooses the units and the researchers it wishes to evaluate. The results, in the form of quality memos (ranging from 4 being excellent to "not classified") to university department, will be published at the end of the year.

Sources: March 2008

Electronic Bulletin, March 13, 2008

23.4 The AHRC Initiates Agreements with Foreign Countries (UK)

At the End of January, the Arts and Humanities Research Council (AHRC) announced several agreements with foreign countries. In Europe, an agreement with Germany was signed. The AHRC and Deutsche Forschungsgemeinschaft (DFG) will finance research projects among British and German researchers, beginning next winter. In addition, the AHRC established a program with the Japanese National Institute of Social Sciences which will allow ten British doctorates to spend 12 months in Japan. The first prize winners will leave in October 2008. Lastly, the director of the AHRC, Philip Esler, was pleased with the opening of an office of the U.K. Research Councils (RCUK) in India. RCUK includes all of the British research councils, but according to Esler, this move shows the interest of the AHRC in developing strong bonds with the Indian social science research community.

Sources: March 2008

Electronic Bulletin, March 13, 2008 and:

http://www.ahrc.ac.uk/news/news_pr/2008/nihu.asp

http://www.ahrc.ac.uk/news/news_pr/2008/dfg.asp

http://www.ahrc.ac.uk/news/news_pr/2008/rcuk_india_opportunities.asp

23.5 The British universities invited to reinforce their links with the United States, China and India

Without awaiting the conclusions of the report on the international competitiveness of higher education requested by Minister John Denham from Drummond Bone, the Vice-chancellor of the University of Liverpool, the British government has just announced that it would launch a call for applications at the end of April to reinforce scientific and technological relations with the United States, China and India. The funds would be about 12 million Pounds (approximately 15 million Euros).

The U.K. Research Councils (RCUK), has local offices in each of these three countries. With the exception of the European Union, the United States, China, and India are the countries to be initially targeted by the United Kingdom for a strategy of international science innovation.

In 2005, the DTI, in charge of British research at the time, had already launched the program "Science Bridges," at a level of 6 million of Pounds (approximately 7,6 million Euros), which invited the best universities of the country (Cambridge, Manchester and Imperial College, as well as the network SET, a consortium of universities), to create relations with their American counterparts. This time, however, the scheme is extended to the three targeted countries and all the establishments will be able to propose actions, as had proposed the Sainsbury2 report. Although managed by Research Councils, these funds are not intended to finance projects presented by researchers, but rather by institutions, as part of their strategic planning.

Sources: April 2008

Electronic Bulletin April 17, 2008

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